Guide to
STN Patent Databases

Basic Version

Edition 2018
Preface

This manual is intended for use as a textbook, working book and reference book for patent searching on STN International. It is designed to simplify access to online patent information for the expert searcher having knowledge of the patent sector, and also to brush up the occasional user's knowledge of special features in patent searching.

The manual is arranged as follows:

- The Introduction presents the main types of on-line patent searches in compact form. The tabular Overview of the databases and types of searches helps identify the sections of interest when preparing a patent search.

- The short description of STN patent databases is not meant to replace the database sheets but to complement them with certain details that are of particular interest in patent searches.

- Another chapter deals with the most essential Types of search, as far as possible covering all relevant databases and pointing out specific features of the individual databases.

- These are illustrated by the Search examples, representing the basic strategies for searching.

- Finally, some Surveys are presented which proved to be useful in practical work.

When a search problem arises it is advisable to first consult the Introduction to identify the type of search and sections to be read, then to obtain information about the contents and important special features of the selected databases (Patent databases on STN International), then to read the notes on the search type in general and special features of the database (Types of search), and finally to work on the corresponding examples (Search examples). And always consult a current database list before starting your search.
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Introduction
1 Steps to conduct a patent search

Using online databases is actually very like doing a manual search. However, the manual searcher is probably unaware of many of the steps involved.

1.1 Before the search

- Understand the enquiry:
  - Formulate the subject of the search
    - As accurately but also as comprehensively as possible
    - In close cooperation with the client
  - Describe the subject of the search
  - Exclude what is already known or not required
  - Formulate a search title
  - Categorize according to the type of search
  - Define the required degree of completeness (some documents or comprehensive results)
  - Limit using formal criteria, e.g. number of patents expected; period; countries; languages

- Formulate the criteria for the search:
  - Define complexes for the search
  - Select relevant search words
  - Decide on classification (e.g. IPC, CPC, FI and F terms, Derwent MC)
  - Names of inventors/applicants if known
  - Numbers of patents already known

This involves determining search criteria that will accurately reflect the heart of the matter. If one is tackling a search for 'brakes for inline skates', for instance, a number of questions arise:

- Are there other names for inline skates? – e.g. rollerblades or roller-blades or roller skates.
- Is it vital that the brakes are only for roller-blades or could the brakes be used on roller skates? It may be wise to drop the 'inline' element.
- How many documents do you expect? If the subject of the search yields too many results one should (initially) limit the search to a more specific subject (e.g. brakes operated by hand).
- Which one (or more) of the relevant classes should be searched?
- Are there certain firms that ought to come up on the search? – It may be possible to check the quality of the search against this.
- Are some patents already known? – They may give some assistance in narrowing down the search strategy.

- Select one or more patent databases
  - By subject – e.g. Chemistry – Chemical Abstracts
  - By country – e.g. International – DWPI, e.g. U.S.A. – USPATFULL
  - By type of search – e.g. patent family – INPADOCDB

- Prepare a search table (see chapter 37: Search by subject)
Introduction

- Decide how various search criteria should be linked to each other – Search strategy
  (The search strategy also depends on the type of search and the databases chosen, cf. chapter Types of search.)

- Formulate the search queries – Search logic
  (This depends on the type of search and the databases chosen, too. It may also be necessary to perform some online test searches.)

1.2 The actual search

- Offline preparation
  - Prepare a sheet with the search criteria and the search logic as well as room for taking notes during the online session (e.g. query numbers, hits)
  - Prepare a command file with the search criteria and search logic for the software used (e.g. STN Express, STNext) – particularly important with extensive searches

- Enter the search criteria and their linking or execute the command file

- Check the results of the search:
  - Evaluate the number of hits
  - Check the titles
  - Look at some of the hits

- Refine the search/new search
  - Depending on the result already obtained, include new insights
  - Step-by-step approach (to obtain high relevance and sufficient completeness)
  - May be skipped

- Check for duplicates, sort the documents

- Display the documents or those selected, possibly display or order full text

- Save the transcript

1.3 After the search

- Evaluate and compile the results

- Create a search report.

1.4 Nothing found

In spite of good preparation, you may not have found any relevant documents or the number of hits is too large or too small – this may indicate an error in the search formulation or in the database:

- Your search formulation contained an error:
  - Wrong spelling
  - Wrong logic links (brackets!)
  - Wrong language
  - Wrong syntax
  - Wrong database field
  - Search by tradename (trademark) rather than technical term, etc.

- Your combination of keywords and classification (IPC, CPC, FI terms) was not optimal
Guide to STN Patent Databases

- Errors in the patent documents, database fields, fields not filled
  - Wrong spelling in the text
  - Missing numbers or typos
  - Wrong classification (IPC, CPC) in the documents
  - Missing names or typos

Adapt your search strategy:
- Find new concepts that define the subject of the search
- Use different possibilities and search approaches
- Consider old IPC codes (re-classification may be incomplete)
- Full-text search

Searches are often incomplete!!!
- The degree of completeness and relevance of the results depend largely on the search terms used.
- Different search strategies always lead to different results!
- Combine several search approaches to increase completeness!
- **Never blindly trust your search results!**
- You can achieve a high relevance of the search results by searching in value-added databases.

### 1.5 Approach to search: broad or precise?

- Objective
  - As complete as necessary (depending on the type of search)
  - As quickly as possible

- Start your search as precise as possible
  - Database with title and abstract + indexing (no full-text database yet)
  - Specific search words, index and classification codes (at sub-group level, CPC, F terms)
  - Use the possibilities of the databases to prepare your search and for a precise search
  - Link search words and codes with **AND**

- Carefully broaden your search
  - Step-by-step
  - Use synonyms
  - Use broader classification codes
  - Use full-text databases
  - Use citations

- View the hits
  - At any level
  - Keep relevant documents, depending on the possibilities in the database, or use additional tools
  - Exclude relevant documents found in the next search step
  - Continuously improve and adapt your search strategy
Introduction

- Interpret the search results
  - Sort long hit lists, e.g. newest publications first or a particular patent assignee
  - Look at the figures
  - Read the abstract
  - Read the main claim
2 Typical searches and types of search

- **What patents exist for brakes suitable for roller blades?**
  You want to know about patents granted/applied for in a specialist field, thus what is already known, possibly already patented, and whether there has already been a solution to the problem you pose. This is a Subject Search.

- **What patents are owned by Smith, Inc. in Columbus, OH?**
  This is a Name Search – for a particular applicant.

- **What patents are owned by Zebadiah Smith?**
  This is also a Name Search – for an inventor.

- **There is reputed to be a patent owned by Smith, Inc. for a new brake for roller skates. Is this true? What does it say?**
  This is a combination of Name Search and Subject Search.

- **Do we have to have regard to the US patent no. 5,000,075 in the UK?**
  You do have to, a) if you want to sell your product in the USA or b) if this patent has been applied for in the UK, either directly at the Intellectual Property Office, IPO, or at the European Patent Office, EPO. – You have to decide yourself about (a), but (b) involves a Patent Family Search.

- **Is there a patent written in English that relates to the number JP57080923?**
  There may be such a patent on account of an application in another country. To find out, a Patent Family Search is necessary.

- **Has a patent been granted to the application no. GB 94-4567, or is the application still valid?**
  A Legal Status Search can answer this question.

- **What other patents are cited in the US patent no. 5,000,075? Where has this patent itself been cited?**
  These are questions that can be answered with a Citation Search.

- **What is the complete text of US patent no. 5,000,075?**
  There are some databases that provide the Full Text for patents.

- **How can I search for the patents of a particular country?**

- **How can I search for dates?**

- **How should I enter a patent number?**
### Introduction

<table>
<thead>
<tr>
<th>Type of Search</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Subject search</td>
<td>You need to find out what patents have been published on a subject or in a specialist field, i.e. you want to know what is already known and what, if anything, is already protected by a patent – you want to establish the ‘state of the art’.</td>
</tr>
<tr>
<td>Name search</td>
<td>You need to find out all the patents published by a particular company (applicant) or person (inventor).</td>
</tr>
<tr>
<td>Patent family search</td>
<td>You are aware of a published patent (its patent or application number) and want to know in which other countries its inventor has filed an application or been granted a patent.</td>
</tr>
<tr>
<td>Legal status search</td>
<td>You are aware of a published patent (its patent or application number) and want to know if a patent was granted and if it is still valid.</td>
</tr>
<tr>
<td>Citation search</td>
<td>You have details of a published patent and want to know what other publications are cited in it and in which other publications it is itself cited.</td>
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<td>Full text order</td>
<td>You have got the details of a published patent and want the entire text and drawings.</td>
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<td>Search by country</td>
<td>You want to limit the outcome of a search (e.g. a subject search) to particular countries.</td>
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<tr>
<td>Search by date</td>
<td>You want to limit the outcome of a search (e.g. a subject search) to a particular period of time.</td>
</tr>
<tr>
<td>Search by number</td>
<td>You have got a number, which may be either a patent number or an application number, for a published patent, and want to know whether this application really exists and what is protected under the patent.</td>
</tr>
</tbody>
</table>

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### 3 Overview: Search options available in STN databases

On the following pages, an outline is given of the most important search options available in STN patent databases. These symbols are used:

- + search option is available,
- * limited search option (e.g. only display).

For an actual search problem, the notes on the appropriate database and the search type in general should be read first, and then the other notes or examples.
3.1 Bibliographic patent files (international)

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<th>KOREA PAT</th>
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<th>PATDPA*</th>
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* Closed files: There have been no more updates since 2004 (PATDD), 2009 (FRANCEPAT), 2011 (PATDPA), and 2013 (JAPIO) respectively.
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*Closed file: PATDPASPC has not been updated since 10/2013.
3.6 Files with patent classifications and references

- **All databases with IPC.** The International Patent Classification (IPC) can be searched using the thesaurus in the /IPC field. Range searching is also possible.

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- **IFIREF.** This database gives access to the US Classification and IFIClaims Uniterms.
Patent databases on STN International
4 The dynamics of the patent procedure

There is a big difference between patent databases and other biographical databases, and it is this: the patent databases have to reflect the actual progress of a patent application, examination and granting. Thus the document entered into the database shows the stage the application has reached at a particular time, for instance after publication of the application. The data that are published in respect of the application after this date are added to the databases later. They use a variety of principles in the way they do this updating.

4.1 Static principle

A publication (e.g. an unexamined application) is received as a record (= documentation unit) in the database. This record is never altered. A further publication (e.g. the granted patent) or changes to the legal status are not recorded in the database.

This principle is employed in the PCTFULL database (and in most of the scientific literature databases).

4.2 Dynamic Principle

A new record is set up in the database at the point of the first publication, and any details of the publication, and possibly the legal status, are entered at this stage.

When a new publication takes place or the legal status changes, the content of the original record is altered, with the result that one record is used for one patent application procedure, however many publication events have taken place.

This ‘dynamic’ principle is used in the DWPI (invention level) and INPAFAMDB databases, for instance.

4.3 Mixed principles

Some of the databases do not apply a ‘pure’ static or dynamic principle, but some sort of variation. In most cases only a small number of fields is updated. The bibliographical details and text of a new patent publication for a particular application (patent procedure) are recorded in a new document (record) in the database. Here are the most important principles used:

4.3.1 Static principle using separate documents

When the first publication is made of a particular invention the first document is entered into the database holding the bibliographical details and text substance of the publication. If later a patent is granted the new publication and
its details and text substance will be entered into a second document in the database. A number of fields in both documents will be updated when later changes occur, e.g. the document type or national classification.

This principle is applied in the IFIPAT database.

**Figure: Static principle using separate documents**

**Figure: Static principle using segmentation**

### 4.3.2 Static principle using segmentation

As with the static principle a document once entered in the database remains in its original form, even if later publications appear. To add any further publications relating to the same invention, a special construction is used. One ‘Documentation Unit’ is divided into several ‘Segments’ or ‘Publication levels’. Each segment or level takes one document.

If an application is first published a new documentation unit is created and the data of the document are entered. If after that a patent is granted the existing documentation unit is extended by one segment or level and the data of this publication are entered. Once they have been entered, the documents are not altered in any way.

Later publications or legal status data (for example in INPADOCDB) may also be entered into the documentation unit. Documents containing legal status data are dynamic, i.e. new information is added to the existing data.

This principle is used in a number of databases, e.g. EPFULL, INPADOCDB, DWPI.

### 4.3.3 Dynamic principle using two databases

This principle is used in the American full-text databases USPATFULL and USPAT2. As with the dynamic principle, the records in the USPATFULL database are altered (entered, overwritten) when new information becomes available. In order to place the new full text of a granted patent in addition to that of the application this new document is entered in the USPAT2 database. If applicable, the bibliographical details may be altered. If there is another new publication later, the whole document in USPAT2 will be overwritten.
Figure: Dynamic principle using two databases
5 Chemical Abstracts Plus (CAplus)

5.1 Typical queries

- Searches to find out the state of the art in chemistry and chemical processes (text and classification), e.g.:
  - What patents have been published on immunisations against hepatitis B in the last 5 years?
  - Are there any patents on the use of ‘diaminodiphenyl ether-pyromellitic anhydride copolymers’?

- Name Searches, e.g.:
  - What patents in the chemical field does Richard Paul Eckberg own?
  - What patents are owned by Stinx & Co.?

- Patent Family Searches, e.g.:
  - In what countries has an application to patent the Japanese invention JP 62111230 been made?

- Monitoring patents

5.2 Brief description

Producer: Chemical Abstracts Service (CAS), USA

Period covered: Since 1907
- 1907–1966: Images from the printed CA,
- More documents before 1907

Size:
- Chemical Abstracts Plus (CAPlus): more than 13.7 million records on patents,
- Chemical Abstracts (CA): more than 9.33 million records on patents (October 2018)

Updated:
- Chemical Abstracts Plus (CAPlus): daily
- Chemical Abstracts (CA): weekly

Language: English

5.3 Contents

- Patents, articles in journals, books, conference reports, technical reports, university publications
- From all fields of chemistry and chemical processes
- Approx. 17% of the annually entered 500,000 documents are patents
- Publications from 60+ countries, the European Patent Office and the PCT, RD (Research Disclosure) publications
- Technical Disclosure from the IP.com Journal (from vol. 1, no. 1, January 2001). IP.com is both an electronic and printed journal (see SO field). The PI (Patent Information) field shows the number with IP as the 'country' code. (Technical Disclosure / Defensive Publications can also be searched and published on http://www.ip.com/.)
- Approx. 21,000 documents of journal publications published before 1907, approx. 10,000 US patents from 1900 to 1906, approx. 1,250 US patents from 1808 to 1859
- Enhanced title and abstract in English written by experts
- International patent classification (IPC) for basics and family members, online thesaurus incl. catchwords, range searching possible, re-classification of the back-file (main class codes of IPC1–7 available for basics only)
- U.S. classification codes (the current one in the NCL field for basics and equivalents, that at the time of publication in the INCL field for basics only), online thesaurus including catchwords, no longer assigned, replaced by CPC, codes are kept as historical classification data
Guide to STN Patent Databases

- Common Patent Classification (CPC), thesaurus, range searchable
- European Patent Classification (ECLA), thesaurus, range searchable; retained for a limited period of time
- F-TERMS (Japanese classification) since 1/2004
- Additional indexing (keywords, REGISTRY numbers)
- Details of the patent family
- Cited references for journal articles and conference proceedings since 1997
- References to patents (Basic Document; Cited Patents; US, DE, EP, WO since 1997, FR, GB since 2003, CA since 2005, cited patents from nearly 300,000 patent records from 1982 to 2008 additionally; as the Basic Documents are often published applications without references patent citations tend to be incomplete).
- Citing references: the accession numbers of the citing documents are linked
- Legal status information (assignments/reassignments) for US patents since 1980 (US priorities or US equivalents)
- PatentPak: efficient viewing of patent full-texts, including quickly finding chemical structures in the patent full-texts
- TIFF images of CA abstracts printed between 1907 and 1966 are available in CAPIplus; displayable using the PAGE, PAGE.PREV, and PAGE.NEXT formats
- Online thesauri available in the fields: Controlled Terms (/CT), CA Sections/Classification Code (/CC), Roles (/RL), Company Name (/CO), F-Terms (/FTERM), International Patent Classification (/IPC), National Patent Classifications Current (/INCL), National Patent Classifications Issue (/INCL)
- For more detailed information see http://www.cas.org/expertise/cascontent/caplus/patcoverage/

Besides patents, sources for the CA (Chemical Abstracts) file include books, journals, conference reports, technical reports and university publications. Thus, CA is the only database treated here which does not cover exclusively patents.

Patent publications for recording in CA are selected on the basis of EPIDOS data (formerly INPADOC), Vienna. The patents are subject to a restriction by countries (60+ countries, European Patent Organization and World Intellectual Property Organization), by document types and subject area (on the basis of the notations of the International Patent Classification). The criteria are described in the manual Patent Information from Chemical Abstracts Service.

The documents selected for CA are examined whether a document from the same family is already available in the Chemical Abstracts. If no earlier publication is found, the document is recorded as Basic and examined and indexed by an expert. If a corresponding document does exist in the database, the patent family is updated (patent numbers, application numbers).

5.4 Dynamics

Documents in CAPIplus are altered if further patents on the invention appear (dynamic principle). The database has a number of update fields, which will be amended or overwritten (see section SDI searches). It may be that there are two or more records of the same patent family in the database. In these cases the number in the field FAN.CNT (Family Accession Number Count) is greater than 1. In the following cases 2 or more records are entered for a publication or invention (patent family), i.e. there are 2 or more Basic Documents for one family:

- Certain changes to the patent family (e.g. division or continuation),
- If a publication contains information on too many chemical substances that would exceed the limit of a CA record,
- Starting from 01 July, 2008 for US, DE, GB, FR, CA and EP both the national applications with the oldest priority are entered in a first document and the equivalent WO application are entered in a second document (the WO application frequently having more information including chemical structures). A reference to the second document can be found in the SO field: Chemical Indexing Equivalent to...

If only one of the two family document is wanted it is recommended to sort the patent families with FSORT or use the Patent Family Manager.
5.5 Updating

Patent documents are imported a few days up to three weeks after publication, if applicable without complete indexing (see Patent Currency Information) but with the original abstract (partly in original language, e.g. German, French; partly machine translation). The complete indexing will be added within approx. 2 months.


The CAPlus database comprises the data from CA and some additional sources. Updating is done daily.

5.6 Notes

It is recommended to make a cost assessment before starting a search:

- The cost per connect hour is low in CA, SEARCH terms are charged. When searching E#lists (SELECT or EXPAND) or when using TRANSFER, high costs may result quickly.
- The HCA file has a higher connect hour fee but no SEARCH term pricing. When searching E#lists (SELECT or EXPAND) or when using TRANSFER, HCA is, therefore, to be recommended.
- In ZCA no connect hour charges apply but the SEARCH term fee is higher. The Z-files can be recommended for browsing E#lists, e.g. the IPC thesaurus.

5.7 Document from HCAplus

Display format: ALL LSUS

HCAPLUS COPYRIGHT 2016 ACS on STN
PatentPak PDF
AN 2007:968836 HCAPLUS
DN 147:279110
ED Entered STN: 30 Aug 2007
TI Curable rubber mix containing silica and ether compound for tires
IN Di Ronza, Raffaele
PA Bridgestone Corporation, Japan
CODEN: EPXXDW
DT Patent
LA English
CC 39-9 (Synthetic Elastomers and Natural Rubber)
FAN. CNT 1
PPPI

PATENT NO. KIND DATE LANGUAGE PatentPak
--------------- -------------- ----------- ---------------
EP 1826234 A2 20070829 English PDF
EP 1826234 B1 20120606 English PDF
JP 5117738 B2 20130111 Japanese PDF

PI

PATENT NO. KIND DATE APPLICATION NO. DATE
--------------- -------------- ----------------- -----------
EP 1826234 A3 20090729
EP 1826234 B1 20120606
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU, RS
IT 2006T00139 A1 20060527 IT 2006-T0139 20060227
IT 1373229 B1 20100419
ES 2387507 T3 20120925 ES 2007-103073 20070226
JP 2007231275 A 20070913 JP 2007-48095 20070227
JP 5117738 B2 20130111
PRAI IT 2006-T0139 A 20060227
A curable rubber mix having a crosslinkable unsat. - chain polymer base, a curing system, and a reinforcing filler system having >50% SiO2; the reinforcing filler system has a polyether-polyol compound CR(R')3 (I) with a mol. weight 200-400; where R = H or \( \text{CH}_2\text{OCH}_2\text{CH}_2\text{OH} \); n = 1-3; R' = \( \text{CH}_2\text{OCH}_2\text{CH}_2\) OH. Crosslinkable composition contains SBR and butadiene rubber base, carbon black, silica, a silane bonding agent, zinc oxide, stearic acid, wax, antioxidants, and the polyether-polyol compound, to a fill factor of 66-72%.

SBR butadiene rubber S vulcanizable silica hydroxy ether
Patent databases on STN International

compound for improved storage dynamic modulus and mech. properties for tires)

IT 9003-17-2
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
{butadiene rubber; curable rubber mix containing silica reinforcement and ether compound for improved storage dynamic modulus and mech. properties for tires)

IT 166033-01-8
RL: MOA (Modifier or additive use); USES (Uses)
{curable rubber mix containing silica reinforcement and ether compound for improved storage dynamic modulus and mech. properties for tires)

IT 7631-86-9, Silica, uses
RL: TEM (Technical or engineered material use); USES (Uses)
{curable rubber mix containing silica reinforcement and ether compound for improved storage dynamic modulus and mech. properties for tires)

IT 9003-55-8
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
{styrene-butadiene rubber; curable rubber mix containing silica reinforcement and ether compound for improved storage dynamic modulus and mech. properties for tires)

ASSIGNMENT HISTORY FOR US 20070219300

LSUS RAD: 20070604
RAUP: 20070920
RAK: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).
PAO: DI RONZA, RAFFAELE (DATE EXECUTED: 20070326)
RAC: BRIDGESTONE CORPORATION, 10-1, KYOBASHI 1-CHOME, CHUO-KU, TOKYO 104-8340, JAPAN
RAA: SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., SUITE 800, WASHINGTON, DC 20037
MRN: 19408 MFN: 299 (2 Page(s))
6 **CNFULL**

### 6.1 Typical queries

- Searches for the state of the art in CN publications (text and classification), e.g.:
  - What CN applications are there on photo-voltaic cells?
- Name searches (inventor, applicant), e.g.:
  - What CN applications of CHANGZHOU TRINASOLAR CO LTD were published during the past year?
  - What CN applications are there of Mr MENG JIANG together with Mr ZHEN ZHANG?
- Searches using formal data (e.g. numbers), e.g.:
  - What is the text of the CN utility model numbered CN 202373282?
  - We are looking for the full-text of an application of HUAWEI TECH CO LTD of August 8, 2012.
- Full-text display of CN patents:
  - What are the claims of the CN patent numbered CN 102630137?
- Numeric Property Search in the context of the fulltext
  - Search for a length in the nanometer range
- Display of legal status data
- Monitoring CN applications
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

### 6.2 Brief description

**Producer:** Questel, France  
**Period covered:** Since 1985  
**Size:** More than 16.4 million documentation units on patents and utility models, more than 16.4 million full texts, more than 11.8 million images (October 2018)  
**Updated:** Weekly  
**Languages:** English

### 6.3 Contents

- Full text of patent applications, granted patents and utility models published in the People’s Republic of China
- Bibliographical details including patent assignee, inventors and related PCT applications
- Titles and abstracts are entered as machine translations first, they are replaced by manual translations after three months, the descriptions and claims are machine-translated
- Improved machine translation of all text parts from Chinese to English in new and updated documents from July 2015
- International Patent Classification (IPC), IPC thesaurus, range searchable
- Cooperative Patent Classification (CPC), thesaurus, range searchable
Patent databases on STN International

- European Patent Classification (ECLA), ECLA thesaurus, range searchable; other European classifications: ICO, IDT
- Legal status information from INPADOCDB can be displayed (LS, LS2, FAM and CFAM fields), but is not searchable
- Drawings from the first page of the publication, if available
- Numeric values of more than 30 physical and chemical properties in almost 400 units (Version 1)

6.4 Dynamics

The CNFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status from INPADOCDB is updated.

6.5 Updating

Publications appear in CNFULL 1 to 3 weeks after the date of publication.

6.6 Document from CNFULL

Display format: MAXG LS

CNFULL COPYRIGHT 2012 QUESTEL on STN.

AN 2011000608  CNFULL ED 20120202 UP 20120827 EDTX 20120202 Full-text
TI Safe self-destroying injector
IN XIN HUO
PA GUANGDONG KANGERMEI MEDICAL DEVICES CO LTD
LAF English
LA English
DT Patent; (Full text)
PIT CNA UNEXAMINED APPLICATION FOR A PATENT FOR INV.
P CN 102038989 A 20110504
AI CN 2011-10026962 20110125
PRAI CN 2011-10026962 20110125
IPCI A61M0005-50 [I, A]; A61M0005-31 [I, A]; A61M0005-315 [I, A]

AB Equivalent

The invention provides a safe self-destroying injector, which comprises an outer shell, a core bar, a core bar rubber stopper, a core bar cover, a core bar lock catch, an injection needle, a needle bed, a spring, a safety spring storage room and the outer cover of the safety spring storage room, wherein the core bar rubber stopper is arranged at the
DETD

One kind of safety self-destruction injector

Area of technology

This invention involves the injector technology, especially involves one kind of safety self-destruction injector.

Background technology

In the clinical care process, many sickness patients frequently need to carry on the injection treatment, by through injection solution treatment method treatment disease and rescue sickness patient. Therefore, the injection is carries on science to treat and rescue the important medical technology measure of patient. The injector is at...

CLM

1. Kinds of safety self-destruction injectors, its characteristic lies in: The establishment has the coat, core bar and core bar rubber plug and core bar lid and core bar lock catch, hypodermic needle, needle valve seat, spring and restraining spring storage room and restraining spring storage room outer cover; Stated the core bar rubber plug establishment to state under the core bar the nose, states the core bar to cover the assembly to state the core bar, states the core bar lock catch to fix in states on the coat the endophragm, states the core bar establishment to state the coat; Stated the restraining spring storage room with state the coat permanent connection, states restraining spring storage room establishment willowy to open the installment; Stated the needle valve seat establishment to have the head end and end, states the hypodermic needle to fix in states the head end, end states loaded in states the restraining spring storage room, states the head end to load in states the restraining spring storage room outer cover, states the restraining spring storage room with state the restraining spring storage room outer cover permanent connection, states the spring pocket to suppose in states the needle valve seat, and end stated a spring termination to state, states another termination of spring to state the restraining spring storage room outer cover’s interior.

2. The safety self-destruction injector that according to claim 1 station, its characteristic lies in: Stated the core bar establishment to have the safety self-destruction switch column, states the safety self-destruction switch column to fix in states the core bar.

AN 2011000608 CNFULL ED 20120824 UP 20120901 EDTX 20120202 Full-text

TI Safe self-destroying injector

PA GUANGDONG KANGERMEI MEDICAL DEVICES CO., LTD.

LA English

AB Equivalent

The invention provides a safe self-destroying injector, which comprises an outer shell, a core bar, a core bar rubber stopper, a core bar cover, a core bar lock catch, an injection needle, a needle bed, a spring, a safety spring storage room and the outer cover of the safety spring storage room, wherein the core bar rubber stopper is arranged at the lower end of the core bar; the core bar cover is...
One kind of safety self-destruction injector

Area of technology

This invention involves the injector technology, especially involves one kind of safety self-destruction injector.

Background technology

In the clinical care process, many sickness patients frequently need to carry on the injection treatment, by through injection solution treatment method treatment disease and rescue sickness patient. Therefore, the injection is carries on science to treat and rescue the important medical technology measure of patient. The injector is at ...
7 **DEFULL**

7.1 **Typical queries**

- Searches for the state of the art in DE publications (text and classification), e.g.:
  - What DE applications are there on electrical surgical instruments?
  - What DE patents are there on hybrid drives?
- Name searches (inventor, applicant), e.g.:
  - What DE applications of SUZUKI MOTOR CORPORATION were published during the past year?
  - What DE patents are there by Mr. GEORG WITTMANN of DEHN & SOEHNE?
- Searches using formal data (e.g. numbers), e.g.:
  - What is the text of the DE utility model numbered DE 20 2013 004 927?
  - We are looking for DE publications in the field of A61L 27 (Materials for prostheses) with DE as the priority country and 2008 to 2012 as the priority year.
- Numeric Property Search in the context of the fulltext
  - Search for a length in the nanometer range
- Full-text display of DE applications:
  - What are the claims of the DE patent numbered 10 2012 010 676?
- Display of legal status data
- Monitoring DE applications
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

7.2 **Brief description**

**Producer:** Questel, France

**Period covered:** Since 1877

**Size:**
- More than 6.2 million documentation units of patents and utility models,
- more than 2.8 million full texts,
- more than 1.1 million patent images (October 2018)

**Updated:** Weekly

**Languages:** English, German

7.3 **Contents**

- Full text of German patent applications, granted patents and utility models published by the Patent Office of the German Reich (Reichspatentamt) and the German Patent and Trademark Office (since 1877, in PATDPAFULL since 1979)
- The full texts are available in German and English (machine-translated)
- For translations of WO applications and EP applications into German (DET publications) only the full text in German is available. The searchable original texts in English can be found in EPFULL and PCTFULL, respectively.
- Bibliographical details including patent assignee, inventors and representative
7.4 Dynamics

The DEFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status in INPADOCDB is continuously updated.

7.5 Updating

New data are entered in the database between about 10 days and 4 weeks after the publication date.

7.6 Document from DEFULL

Display format: MAXG

Full text of the OPI publication (Offenlegungsschrift) in German and machine translation in English

AN 2012037470  DEFULL  ED 20131220  UP 20131220  EDTX 20131220
TIEN Cam Shaft Adjustment Device
TIDE Nockenwellenverstelleinrichtung
IN WEBER JUERGEN, DE; HEINEMANN ROBERT, DE
PA Schaeffler Technologies AG & Co. KG, 91074 Herzogenaurach, DE
LAF German
LA German
DT Patent; (Full text)
PI T DE 2012-102012208496 A1 20131128
PI DE 102012208496 A1 20131220
PI DE 2012-102012208496 20120522
PRAI DE 2012-102012208496 20120522
IPCI F01L0001-344 [I,A]
CPC F01L0001-047; F01L2103-00; F01L0001-3442

ABEN

The invention relates to a camshaft adjusting device (19) having a camshaft adjuster (4), comprising a stator (36), a rotor (38) which can be rotated relative to the stator (36) about a rotational axis (74), and a hub (52) which is arranged on the rotor (38) or on the stator (36) and...

ABDE

Die Erfindung betrifft eine Nockenwellenverstelleinrichtung (19) mit einem Nockenwellenversteller (4), umfassend einen Stator (36), einen gegenüber dem Stator (36) um eine Rotationsachse (74) relativ drehbaren Rotor (38) und eine am Rotor (38) oder am Stator (36) and...

DETDEN

Area of the Invention

[0001] The invention concerns a Cam Shaft Adjustment Device with a cam shaft Masquerader, comprehensively a Stator, a Rotor relatively rotatable opposite the Stator around a Rotation Axle and at the Rotor or at the...
The invention relates to a camshaft adjusting device (19) having a camshaft adjuster (4), comprising a stator (36), a rotor (38) which can be rotated relative to the stator (36) about a rotational axis (74), and a hub (52) which is arranged on the rotor (38) or on the stator (36) and is radially fixed in at least three spacer elements (64).

2. Cam Shaft Adjustment Device (19) according to claim 1, by the fact characterized that at least two of the spacer elements (64) are to each other arranged transferred in axial direction.
Area of the Invention

[0001] The Invention concerns a Cam Shaft Adjustment Device with a cam shaft Masquerader, comprehensively a Stator, a Rotor relatively rotate opposite the Stator around a Rotation Axle and at the Rotor or at the...

CLMEN

1. Cam Shaft Adjustment Device (19) by a cam shaft Masquerader (4), comprehensively a Stator (36), one opposite the Stator (36) around a Rotation Axle (74) relatively rotate Rotor (38) and one in the Rotor (38) or in the Stator (36) arranged Hub (52) by a Supporting Bushing (62), as well as by one in the Admission Beech (62) taken up Cam Shaft (12), by the fact marked that the Cam Shaft (12) is radially fixed in the Supporting Bushing (62) over at least three Spacer Elements (64).

2. Cam Shaft Adjustment Device (19) according to claim 1, by the fact characterized that at least two of the Spacer Elements (64) are to each other arranged transferred in axial Direction.

DETDDE

Gebiet der Erfindung

[0001] Die Erfindung betrifft eine Nockenwellenverstelleinrichtung mit einem Nockenwellenversteller, umfassend einen Stator, einen gegenüber dem Stator um eine Rotationsachse relativ verdrehbaren Rotor und eine am...

CLMDE

1. Nockenwellenverstelleinrichtung (19) mit einem Nockenwellenversteller (4), umfassend einen Stator (36), einen gegenüber dem Stator (36) um eine Rotationsachse (74) relativ verdrehbaren Rotor (38) und eine am Rotor (38) oder am Stator (36) angeordnete Nabe (52) mit einer Aufnahmebuchse (62), sowie mit einer in der Aufnahmebuchse (62) aufgenommenen Nockenwelle (12), dadurch gekennzeichnet, dass die Nockenwelle (12) in der Aufnahmebuchse (62) über wenigstens drei Abstandselemente (64) radial festgelegt ist.

2. Nockenwellenverstelleinrichtung (19) nach Anspruch 1, dadurch gekennzeichnet, dass wenigstens zwei der Abstandselemente (64) in axialer Richtung zueinander versetzt angeordnet sind.
8 Derwent World Patents Index (WPINDEX, WPIIDS, WPIX)

8.1 Typical queries

- Searches for the state of the art / searches for information / searches in respect of novelty (text, classification, and indexing), e.g.:
  - What is the state of the art world-wide for Brakes for inline skates?
- Name searches (inventor, applicant), e.g.:
  - What patents does a certain B. Clinton have on the Treatment of rheumatoid arthritis?
  - What patents does FIAT own on Airbags?
- Searches using formal data (numbers: publication number, application number), e.g.:
  - What is contained in the US patent numbered 645532 (patent or application number)?
  - What is the content of the examined Japanese application, JP 2738976?
- Family searches:
  - Is there an equivalent to NEC CORP's Japanese application, JP 2710608, in English?
  - In what countries have Philips applied for patent rights on the priority number NL 83-1445?
- SDI searches

8.2 Brief description

**Producer:** Clarivate Analytics, Philadelphia, USA  
**Period covered:** Since 1963  
**Size:** More than 38.2 million records for patents and utility models, more than 28.2 million patent drawings (October 2018)  
**Updated:** Several times per week (82 updates per year)  
**Languages:** English, French, German, (Spanish)

8.3 Contents

- Extracts from the patents documents of 50+ patent organisations, including EP and WIPO
- Research Disclosure (RD),  
  (International Technical Disclosure (TP) – up to 11/1993)  
  (Defensive Publications can now be published and searched on http://www.ip.com/)
- Numerical values of more than 55 physical and chemical properties in approx. 1,800 units (Version 2)
- Documents consist of an Invention Level and a Publication Level, both levels can be searched and displayed separately
- Invention Level:
  - Bibliographical details of the patent family, including language information for each family member
  - A newly formulated, enhanced title
  - Structured abstracts (AB),  
    750 000 Documentation Abstracts (ABDT, from the years 1995-1999), Extension Abstracts in WPIX (in CPI file segment) from 1999
  - Names of inventors and patent assignees; additional patent assignee code (with online dictionary)
  - Graphics (patent drawings, chemical structures)
Patent databases on STN International

- Current International Patent Classification (IPC, including re-classification), IPC thesaurus
- Cooperative Patent Classification (CPC), thesaurus, range searchable, re-classification
- European Patent Classification (ECLA) with online thesaurus, other European classifications: ICO (In Computer Only), no longer assigned from 1/2013, existing codes are kept as historical classification data
- U.S. National Classification with online thesaurus, will no longer be assigned and be replaced by CPC, existing codes will be kept as historical classification data
- Derwent Classification and Manual Codes (Electrical Patents Index)
- Derwent Chemistry Resource (DCR) from Derwent week 16/1999: Additional indexing and structure searching
- Japanese FI and FTERMS (since 1966) with online thesaurus
- Additional indexing for chemical patents (accessible only for subscribers of Derwent services in WPIX and WPIDS)

- Publication Level:
  - Bibliographical details of the original and selected data for each family member (available from selected patent offices only)
  - Original title, full inventor and assignee names plus agent details, including address details, original abstract and main claim
  - Additional abstract (ABEQ, structured, or main claim), if considered necessary
  - International Patent Classification from the original publication, re-assigned IPC for the respective publication, IPC thesaurus
  - Original US Classification from 1975

The World Patents Index is accessible at three user levels:
- WPINDEX—all STN users
- WPIDS—subscribers
- WPIX—selected subscribers

Coverage at invention level starts in various years for the individual subject areas (also depending on the country, see appendix):
- Pharmaceuticals: 1963
- Agricultural chemicals: 1965
- Plastics and polymers: 1966
- Other fields of chemistry: 1970
- Mechanics, electrical engineering, other fields of engineering: 1974

Coverage at publication level also varies, depending on the country:
- Original text data:

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Guide to STN Patent Databases

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1 German; 2 Portuguese; 3 Spanish; 4 English, French, German; 5 Applications in English; 6 Applications in French or German; 7 Machine (assisted) translation; 8 Human translation; 9 Patent applications; 10 Patents; 11 Utility models

- Bibliographical details of original documents (incomplete bibliographical details are available from other countries):

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*APTS: Application Number, Thomson Scientific

Starting from 1996 (DW 9626), German utility models are entered in the World Patents Index. A utility model may also appear with its application number as a priority application (with BR, CN, DE, ES, IT, and JP priorities).

**Note on text substances at invention level.** To improve the accessibility of the content of the patents the database producer formulates a new, enhanced title and an abstract in English. The words of the title can be searched in their basic grammatical form (Title Terms /TT) and are complemented by Additional Words (/AW). The proximity relations of the title words are maintained in the TT field. An online thesaurus is available in the /TT field.

Older titles consist of two parts separated by a dash. The first part names the field of the invention while the second part summarises its novelty. Since 1999 there are newly structured titles and abstracts: The title is no longer segmented, but still names both the field of the invention and its novelty. There are three different types of abstracts:

- Basic Online (Alert) Abstract
- Technology Focus (only if sufficiently presented in the document)
The Alert Abstract is structured. The sections have these headings:

- **Novelty**: Short description of what makes the invention novel, i.e. in which way it is different from existing technology in a non-trivial way
- **Detailed Description**: Summary of the main claim (and, if applicable, other independent claims) if this would blast the Novelty section
- **Activity**: Description of the biological effect of the claimed invention, particularly with pharmaceutical, veterinary, or agrichemical patents
- **Mechanism of action**: Description of the biological mechanism the invention uses for its effect, particularly with pharmaceutical, veterinary, or agrichemical patents
- **Use**: Always available, list of applications of the invention in its field
- **Advantage**: Summary of the advantages of the invention, from the description by the inventor
- **Description of Drawing(s)**: Short description of possible drawings including references

The individual sections are available depending on the field of the invention and contents of the document. The restructuring of the abstract affects searching as well as quick reading and understanding the patent.

The Technology Focus is to enable end users and engineers to find out quickly if the patent is of interest. The Paragraph Headings used describe the field of an invention from different points of technology in order to present the scientific contents in an easily understandable form:

- **Agriculture**: Pesticides, Herbicides, Fungicides, Fertilizers, etc., excluding their preparation (cf. Organic Chemistry)
- **Biology**: Naturally occurring biological materials
- **Biotechnology**: Genetic engineering, etc.
- **Ceramics and Glass**: Glass, Refractories, Ceramics, Cement, etc.
- **Chemical Engineering**: Industrial processing of chemicals
- **Computing and Control**: Automotive, Environmental, Manufacturing processes, etc.
- **Electrical Power and Energy**: Power generation, Nuclear power, Radioactivity
- **Electronics**: Electronic circuits and devices
- **Environment**: Pollution control, Water and sewage treatment, etc.
- **Food**: Human food, Brewery, Animal food, etc.
- **Imaging and Communication**: Imaging technologies, Inks, Printing, Electrophotography, Recording media, Broadcasting, Telecommunications
- **Industrial Standards**: Used when comparison to industrial standards is made
- **Inorganic Chemistry**: Inorganic materials, except glass and ceramics
- **Instrumentation and Testing**: Chemical analysis, Testing, Medical equipment
- **Mechanical Engineering**: Processing machinery, Mechanical equipment, etc.
- **Metallurgy**: Metal treatment, production, refining, working & finishing, Alloys, Solders, etc.
- **Organic Chemistry**: Preparation of organic chemicals, including pharmaceuticals and agrochemicals, but excluding polymers (cf. Polymers)
- **Pharmaceuticals**: Pharmacologically active compounds & compositions, including veterinary drugs, excluding their preparation (cf. Organic Chemistry)
- **Polymers**: All types of polymers, their preparation, etc.
- **Textiles and Paper**: Paper & cardboard, Natural & synthetic textiles and their processing
8.4 Dynamics

The Derwent World Patents Index database follows the dynamic principle at invention level. Upon arrival of the first document of a patent family, this document is considered as 'Basic', and a new record is created in the database. The bibliographical details of later documents of the same patent family (having the same priority data) are added to the existing record as 'Equivalents', i.e. the publication data to the PI field, application data to the AI field, classification to the IPC field, a new abstract to the AB (ABEQ) field, etc. In some cases (e.g. division, continuation) a new record is created in the database and a cross reference is made in the CR field.

To record updates to an existing document (patent family) there are a number of Update fields being amended or overwritten (cf. chapter Monitoring patents). There are counter fields for the number of countries (CYC – Country Count) and patent numbers (PNC – Patent Number Count) being updated whenever an Equivalent is added.

In addition available data are added at publication level (original text data, bibliographical details from the original, possibly additional abstract – ABEQ, up to 1997). A separate publication level record is created for each country. These being original data, only re-assigned IPC and US classification data will be updated.

8.5 Updating

New documents are entered into the World Patents Index approx. 15 days up to some months after publication, depending on the field of technology and patent office.

8.6 Document from World Patents Index

Display format: MAXG MEMB

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<td>Juicer and grater assembly to extract juice from cut citrus fruit and grate skin of citrus fruit, has extractor removably secured on strainer in positions where tab covers aperture to allow extracted juice to flow through another aperture</td>
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A juicer and grater assembly comprises an extractor having at least one radially extending tab, and a strainer having at least a first aperture larger than a second aperture. The extractor is removably secured on the strainer in two positions where the tab covers the first or second aperture for allowing extracted juice to flow through the second or first aperture.

DETAILED DESCRIPTION - A juicer and grater assembly comprises an extractor having at least one radially extending tab, and a strainer having at least a first aperture and at least a second aperture. The first aperture is larger than the second aperture. The extractor (12) is removably secured on the strainer in a first position where the tab covers the first aperture for allowing extracted juice to flow through the second aperture, or in a second position where the tab covers the second aperture allowing juice and pulp to flow through the first aperture.

USE - For extracting juice from cut citrus fruit and grating outer layer or skin of citrus fruit.

ADVANTAGE - The invention provides both juice and juice with pulp when desired and a grater for grating the outer layer or skin of citrus fruit.

DESCRIPTION OF DRAWINGS - The figure shows a top perspective view of the juicer and grater assembly.

Extractor (12)
Strainer (14)
Upper cone portion (18)
Lower portion (20)
Apex (26)
Tabs (30, 58)

TECHNICAL ENGINEERING - Preferred Component: The first aperture is first apertures. The second aperture is second apertures. The extractor comprises a two-tiered upstanding cone having an upper cone portion (18) and a lower portion (20) integral with the upper cone portion. The tabs
are in an alternating configuration integral with a lower periphery of the second portion. The extractor comprises longitudinal ridges extending from an apex (26) of the upper cone portion to a lower periphery of the lower portion. The tab (30, 58) includes an indentation at a distal end. The strainer further comprises a base having an upper surface and a lower surface, and at least two protrusions disposed on the upper surface to engage the indentation on the radially extending tab. The extractor is removable snap fit secured to the strainer. The strainer comprises circular apertures on the flat base extending from the upper surface to the lower surface. It comprises sharp cutters disposed on the upper surface of the flat base and encircling each circular aperture, thus the strainer (14) may function as a grater. The first aperture is peanut-shaped. The second aperture is Y-shaped. The first apertures are disposed in an alternating configuration relative to the second apertures on the upper surface of the flat base.

Member (0001)
PI EP 1611823 A2 20060104 (200603) EN
TID Presse und Reibe Zusammenbau
TIE Juicer and grater assembly
TIPR Ensemble presse-jus et rape
AG Parry, Simon James
AGA Forrester & Boehmert, Pettenkoferstrasse 20-22, 80336 Muenchen, DE
IN DE GROOTE J
INO: de Groote, Jan-Hendrik
INA: 43, rue jacques de Lalaing, 1040 Brussels, BE
PA (REXAC-D) DART IND INC
PAO Dart Industries Inc.
PAA: 14901 S. Orange Blossom Trail, Orlando, Florida 32837, US
APTS 2005EP-00013159 20050617
PRAI US 2004-875495 20040625
PRTS 2004US-00875495 2004625
IPCI Current: A47J0017-18 [I,A]; A47J0019-02 [I,A]; A47J0043-25 [I,A]
Original: A47J0017-18 [I,A]; A47J0019-02 [I,A]; A47J0043-25 [I,A]
IPCR Current: A23N [I,S]; A23N0001-00 [I,A]
CPC Current: A47J0017-18; A47J0019-025; A47J0043-255
EPC A47J0017-18; A47J0019-025; A47J0043-255
ABEN The invention provides a juicer and grater assembly comprising an extractor (12) having a plurality of radially extending tabs (30) integral with a lower portion (20) thereof, a combination grater and strainer (14) having at least a plurality of first apertures (60) and a plurality of second apertures (64), wherein the extractor (12) is removable secured on the combination grater and strainer in either a first position wherein the plurality of radially extending tabs cover the plurality of first apertures for allowing extracted juice to flow through the plurality of second apertures, or in a second position wherein the plurality of radially extending tabs cover the plurality of second apertures allowing juice and pulp to flow through the plurality of first apertures.

CLMEN A juicer and grater assembly, comprising: an extractor having at least one radially extending tab, a strainer having at least a first aperture and at least a second aperture, wherein said extractor is removably secured on said strainer in either a first position wherein said at least one radially extending tab covers said at least a first aperture for allowing extracted juice to flow through said at least a second aperture, or in a second position wherein said at least one radially extending tab covers said at least a second aperture allowing juice and pulp to flow through said at least a first aperture.

Member (0002)
PI US 20050284309 A1 20051229 (200603)* EN 7[6]
TIEN JUICER AND GRATER ASSEMBLY
AG Amir H. Behnia, John A. Doninger, Esquire
AGA DART INDUSTRIES INC., P. O. Box 779001, Orlando, FL, US
IN DE GROOTE J
INO: de Groote, Jan-Hendrik
The invention provides a juicer and grater assembly comprising an extractor having a plurality of radially extending tabs integral with a lower portion thereof, a combination grater and strainer having at least a plurality of first apertures and a plurality of second apertures, wherein the extractor is removably secured on the combination grater and strainer in either a first position wherein the plurality of radially extending tabs cover the plurality of first apertures for allowing extracted juice to flow through the plurality of second apertures, or in a second position wherein the plurality of radially extending tabs cover the plurality of second apertures allowing juice and pulp to flow through the plurality of first apertures.

CLM 1. A juicer and grater assembly, comprising: an extractor having at least one radially extending tab, a strainer having at least a first aperture and at least a second aperture, wherein said at least a first aperture is configured and dimensioned to be larger than said at least a second aperture, wherein said extractor is removably secured on said strainer in either a first position wherein said at least one radially extending tab covers said at least a first aperture for allowing extracted juice to flow through said at least a second aperture, or in a second position wherein said at least radially extending tab covers said at least a second aperture allowing juice and pulp to flow through said at least a first aperture.
9 EPFULL

9.1 Typical queries

- Searches for the state of the art in EP publications (text and classification), e.g.:
  - What European inventions are there on Locating land mines using geo-radar?
- Name searches (inventor, applicant, agent), e.g.:
  - What inventions of Rossignol have been published by the European Patent Office during the past year?
  - What European patent applications are there of Mr Davin Beckham?
- Searches using formal data (e.g. numbers), e.g.:
  - Has a European Patent been granted to the application numbered EP 1 036 800?
  - What European Patents of ERICSSON were published in 2013?
- Full-text display of European Patents:
  - What are the claims of the European Patent, 0 833 511?
- Legal status display:
  - Which European countries is the patent, EP 1 300 225, valid in?
- SDI searches for European Patents
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

9.2 Brief description

Producer: European Patent Office; FIZ Karlsruhe; LexisNexis Univentio B.V.
Period covered: Since 1978
Size: More than 4.7 million records (full text), more than 1.05 million patent images (October 2018)
Updated: Weekly
Languages: English, French, German

9.3 Contents

- European Patents (EP-B1): full-text published by the European Patent Office in one of the three official languages (English, French, German) since 1980, claims are published in all three official languages
- All texts of the patent applications from 1980 to 1990 and of granted patents from 1978 to 1986 are created by Optical Character Recognition (OCR) software. This means that there may be errors and incomplete text. Some of the documents do not have text because the scanning failed.
- Bibliographical details and original abstract since 1978
- Bibliographical details of Euro-PCT applications filed in one of the official languages; no separate EP document is published of such applications. The full text can be found in PCTFULL.
- Title in all three official languages
- International Patent Classification (IPC), IPC thesaurus, range search possible, no re-classification of the back-file
Patent databases on STN International

- Abstracts are added to new documents within a few weeks (from 1990)
- Details on examiner citations, XP reference numbers are given for non-patent literature cited in European search and examination reports
- Details on inventor citations (patents and non-patent literature), since 2006
- Related documents
- Images (front pages), since 2006
- Legal status information from INPADOCDB (only for display with LS, LS2, FAM and CFAM) and from the EP-Bulletin (also searchable)

9.4 Dynamics

The EPFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status is updated.

9.5 Updating

EP documents are entered in the database 1 day after the EPO publication date; with WO documents there is usually a delay.

9.6 Document from EPFULL

Display format: MAXG (includes LSEP.M)

This document consists of (1) the publication of the European patent application with search report, (2) the publication of the European Patent, and (3) the legal status information.

(1) European patent application with search report

AN 2007:81309     EPFULL  EDP 20080409  ED 20080409  UP 20080725
DUPD 20080723  DUPW 200830
TIEN Rolling mill and method for flexible cold or hot one-way or reverse rolling of a metal strip.
TIFR Laminor et procede de laminage flexible a froid ou a chaud a voie unique ou inverse d'une bande de metal.
TIDE Walzwerk und Verfahren zum flexiblen Kalt- oder Warm-Einweg- oder Reversierwalzen von Metaliband.
IN Barten, Axel; Dipl.-Ing. (ETH), Im Gensterfeld 20, 57078 Siegen, DE; Neukant, Rainer, Dipl.-Ing., Zittenbachstrasse 43a, 57223 Kreuztal, DE; Stahl, Werner, Ing., Zum Hohlen Stein 20, 57223 Kreuztal, DE
PA ACHENBACH BUSCHHUeTTEN GmbH, Siegener Strasse 152, 57223 Kreuztal, DE
PAN 1433270
AG Puerckhauer, Rolf, Am Rosenwald 25, 57234 Wilnsdorf, DE
AGN 38311
DT Patent
LAF German
LA German
LAP German
TL German; English; French
PIT EP A1 20080409
PI EP 1908534
DS AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR
EXTENSION STATES: AL BA HR MK RS
AI EP 2007-18882
EAI 20070926
PRAI DE 2006-102006047463 A 20061007
IPCI B21B0037-26 [I,A]; B21B0037-54 [I,A]

ABEN Rolling mill for flexible cold or hot rolling a metal strip comprises drives for controlling revolutions of uncoiling and coiling units with superimposed controlling of electrical conductance
Rolling mill (1) comprises drives for controlling revolutions of uncoiling and coiling units (7, 8) with superimposed controlling of electrical conductance for compensating for and regulating of mass flow changes of the rolling strip (9) and the strip pulling speed and for regulating the strip traction, especially in the region of the deviating points of the strip acceleration during change of the strip thickness profile. An independent claim is also included for a method for flexible cold or hot rolling a metal strip.

ABDE


DETDDE

[0001] Die Erfindung betrifft eine Flachdichtung mit mindestens einer metallischen Lage, in der jeweils mindestens eine Durchgangsoffnung ausgebildet ist und ein Verfahren zu ihrer Herstellung. Die ein- oder auch...

REPA

EP 1121990 A2 (APP) [0003]
DE 10133756 A1 (APP) [0004]
DE 10310399 A1 (APP) [0005]
EP 1464415 A2 (APP) [0006]
DE 102004041321 A1 (APP) [0007]
DE 10254178 A1 (APP) [0008]

DETDDE


CLMDE

1. Walzwerk zum flexiblen Kalt- oder Warm- Einweg- oder Reversierwalzen von

17. Verfahren zum flexiblen Kalt- oder Warm- Einweg- oder Reversierwalzen von Metallband mit veränderlicher Banddicke in einem Walzwerk, das einen Walzensatz und ein Anstell system zur Einstellung des Walzspaltes, eine dem Walzgerüst vorgeordnete Abhaspel und eine dem Walzgerüst nachgeordnete Aufhaspel für das Walzband aufweist, die mit einem drehzahlgeregelter Antrieb ausgerüstet sind, dadurch gekennzeichnet, dass die Massenflussänderungen des Walzbandes und die von diesen abhängige ....

(2) European Patent

AN 2007:81309 EPFULL EDP 20080409 ED 20081029 UP 20090902
DUPD 20090902 DUPW 200936
TIEN Rolling mill and method for flexible cold or hot one-way or reverse rolling of a metal strip.
TIFR Laminoir et procede de laminage flexible a froid ou a chaud a voie unique ou inverse d'une bande de metal.
TIDE Walzwerk und Verfahren zum flexiblen Kalt- oder Warm-Einweg- oder Reversierwalzen von Metallband.
IN Barten, Axel, Dipl.-Ing. (ETH), Im Gensterfeld 20, 57078 Siegen, DE; Neukant, Rainer, Dipl.-Ing., Zitzenbachstrasse 43a, 57223 Kreuztal, DE; Stahl, Werner, Ing., Zum Hohen Stein 20, 57223 Kreuztal, DE
PA ACHENBACH BÜCHHÜTTE GmbH, Siegener Strasse 152, 57223 Kreuztal, DE
PAN 1433270
AG advotec., Patent- und Rechtsanwälte Am Rosenwald 25, 57234 Siegen-Wilnsdorf, DE
AGN 118201
DT Patent
LAF German
LA German
LAP German
TL German; English; French
PI EP 1908534 B1 20081029
DS DE FR GB IT
AI EP 2007-18882 A 20070926
PRAI DE 2006-102006047463 A 20061007
REP EP 1121990 A (INID56)
EP 1464415 A (INID56)
DE 10310399 A1 (INID56)
DE 102004041321 A1 (INID56)
IPCI B21B0037-26 [I,A]; B21B0037-54 [I,A]

OP 01 20090512 Admissible opposition
Muhr und Bender KG, in den Schlachtwiesen 4, 57439 Attendorn, DE 128420
Opponent Representative:
Neumann, Ernst Dietrich et al., Neumann Mueller Oberwalleney & Partner Patentanwälte Overstolzenstrasse 2a, 50677 Köln, DE 52431

02 20090716 Admissible opposition
Siemens Aktiengesellschaft, Wittelsbacherplatz 2, 80333 München, DE 217240

03 20090729 Opposition filed
SMS Siemag Aktiengesellschaft, Eduard-Schloemann-Strasse 4, 40237 Düsseldorf, DE 224060

1. Rolling mill for flexible cold or hot, one-way or reverse rolling of metal strip (9), in particular made of steel, with changeable strip width, having a roll stand (1) which has a set of rolls (2, 3, 4, 5) and an adjustment system for adjustment of the roll gap, an uncoiler (7) which is disposed in front of the roll stand (1) and a coiler (8) which is disposed after the roll stand.

1. Laminoir pour le laminage flexible a froid ou a chaud, a voie unique ou reversible, de bande (9) de metal, notamment d’acier, ayant une epaisseur de bande variable, comprenant une cage (1) de laminoir, qui a un jeu (2, 3, 4, 5) de cylindres et un systeme de serrage pour le reglage de l’emprise, une debobineuse (7) en amont de la cage (1) de l’aminoir et une bobineuse.

1. Walzwerk zum flexiblen Kalt- oder Warm-Einweg- oder Reversierwalzen von Metallband (9), insbesondere aus Stahl, mit veränderlicher Banddicke, mit einem Walzgerüst (1), dass einen Walzensatz (2, 3, 4, 5) und ein Anstellsystem zur Einstellung des Walzspaltes aufweist, einer dem Walzgerüst (1) vorgeordneten Abhaspel (7) und einer dem Walzgerüst (1) nachgeordneten Aufhaspel (8) für das Metallband (9), die mit einem drehzahlgeregelten Antrieb ausgerüstet sind.

Legal status including history

AN 2007:81309 EPFULL 20080409 EPB241 Request for examination
20071011

20080409 EPB430 Unexamined document without grant, (first publication) 20080409

20080409 EPB840 Designated contracting states AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR EP 1908634 A1 20080409

20080409 EPB844EP Extension of the European patent to AL BA HR MK RS

20080409 EPB845EP Intention to grant 20080409

20080723 EPB452EP Document with grant, second publication 20081029
Patent databases on STN International

20081029 EPB840 Designated contracting states
DE FR GB IT
EP 1908534 B1 20081029

20081029 EPB880 Publication of search report (A3 publication)
20080409

20081217 EPB840N Payment of designation fees
DE FR GB IT

20081217 EPB844EPN Payment of extension fees

20090617 EPB780 Opposition
01 20090512 Opposition filed
Muhr und Bender KG

20090826 EPB780 Opposition
01 20090512 Admissible opposition
Muhr und Bender KG

20090826 EPB780 Opposition
02 20090716 Opposition filed
Siemens Aktiengesellschaft

20090902 EPB740R Agent reassignment
OLD: Puerckhauer, Rolf, Am Rosenwald 25, 57234 Wilnsdorf, DE
NEW: Advotec, Patent- und Rechtsanwälte Am Rosenwald 25, 57234 Siegen-Wilnsdorf, DE

20090902 EPB780 Opposition
01 20090512 Admissible opposition
Muhr und Bender KG

20090902 EPB780 Opposition
02 20090716 Admissible opposition
Siemens Aktiengesellschaft

20090902 EPB780 Opposition
03 20090729 Opposition filed
SMS Siemag Aktiengesellschaft

Display format: LS (contains legal status from INPADOCDB)
Guide to STN Patent Databases

EP 1908534 B1 20081029
...........................................20081030
20081029 EPAK + DESIGNATED CONTRACTING STATES:
EP B1
DE FR GB IT ...........................................20081030
20081029 EPREGBGFG4D REFERENCE TO A NATIONAL CODE
GB: EUROPEAN PATENT GRANTED
NOT ENGLISH
...........................................20081107
20081211 EPREGBFG4D + DESIGNATED CONTRACTING STATES:
FR GB IT ...........................................20081211
20081211 EPREGBFG4D + PAYMENT OF DESIGNATION FEES
DE FR GB IT ...........................................20081218
20081217 EPAKX + PAYMENT OF DESIGNATION FEES
DE FR GB IT ...........................................20081218
20090617 EP26 - OPPOSITION FILED
MUHR UND BENDER KG
20090512 ORE Opposition, Reexamination ...........................................20090618
20090826 EP26 - OPPOSITION FILED
SIEMENS AKTIENGESELLSCHAFT
20090716 ORE Opposition, Reexamination ...........................................20090827
20090902 EP26 - OPPOSITION FILED
SMS SIEMAG AKTIENGESELLSCHAFT
20090729 ORE Opposition, Reexamination ...........................................20090903
20101130 EPPGFP + POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
FR: 20100914
Payment Year: 04 ...........................................20101202
20110228 EPPGFP + POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
DE: 20101123
Payment Year: 04 ...........................................20110303
10 IFIALL

10.1 Typical queries
- Search for current US publications using text, names, international or national (US) classification, e.g.:
  - Have there been new publications (up to last week) by American Cyanamid Co.?
  - What does the US Patent & Trademark Office have on the subject of removing alcohol from alcoholic beverages to produce non-alcoholic ones?
  - What patents have been published in the USA in the field of spectral analysis (classes in the US classification system: 324/076.190, 324/076.210, 324/076.220)?
- Searches using numbers or other formal data, e.g.:
  - What are the claims for patent US 5,749,087?
- Display of the bibliographical details with all claims
- SDI for US publications
- Using the full-text to find material for an opposition
- Multi-File searches with other national and regional patent databases

10.2 Brief description
Producer: IFI CLAIMS® Patent Services, USA
Period covered: Since 1950
Size: More than 13.15 million records (October 2018)
Updated: Twice per week
Language: English

10.3 Contents
- Extracts from the US Patents granted by the US Patent and Trademark Office (USPTO), as published in the Official Gazette (including Utility Patents, Defensive Publications, Design Patents and Reissue Patents, Statutory Invention registrations, Plant Patents) from 1963 onwards, and in the field of chemistry from 1950 onwards
- Published applications since 15 March, 2001
- Bibliographical details (title, publication number and date, number and date of application, applicant, inventor)
- Abstract (AB), Exemplary Claim, all Claims (CLM) since 1971
- U.S. Classification codes (the current one in the NCL field (NCLM, NCLS), that at the time of publication in the INCL field); made accessible through the IFIREF database; no longer assigned and replaced by CPC, the codes are kept as historical classification details
- Cooperative Patent Classification (CPC), online thesaurus, range searching is possible
- International Patent Classification (IPC), online thesaurus, range searching is possible, re-classification
- For chemistry patents before 2011-01-25:
  - Uniterm Codes and Controlled Terms
  - CAS Registry Number (RN) and references to the CAPLUS database
  - Fragment Codes for Substructure Searching of chemical substances
  - Role Indicators for chemical substances
Guide to STN Patent Databases

- CAS Registry Number (RN) and references to the CAPLUS database for chemical patents
- Details of the examination: References (REN, REP), Examiner’s Name (EXNAM), Examiner’s ‘Field of Search’ (EXF)
- Further details: legal representative (Agent: AG, LREP)
- Expiration Date (XPD), Disclaimer Date (DCD) for patents, Term of Patent (PTERM) for Design Patents
- Details of documents related to the present one through Division, Continuation or Continuation-in-part
- Details of other members of the patent family in BE, DE, FR, GB, NL and US (in older documents)
- US legal status data can be found in IFICLS – Current Patent Legal Status Database. IFICLS holds the current legal status of US patents including Reassigned Patents, Re-examined Patents, Expired Patents, Reinstated Patents, Certificates of Correction, Adverse Decision in Interference, Disclaimer/Dedication, Reexamination Request, Reissu Request

IFIALL is the successor of the formerly separate IFIPAT, IFICDB and IFIUDB databases. In addition there are the IFIREF and IFICLS databases, all belonging to the IFIClaims.

10.4 Dynamics

The IFIALL database follows the 'static principle using separate documents'. When the application is published a document is introduced in the database and the bibliographical details and text information will be entered. Once a patent has been granted the new publication will be entered in a second document with its details and text information. Some of the fields in both documents will be updated in the course of the patent's life: The numbers of the application and of the granted patent are entered in the FI field. The number of the application is entered in the PI field of the record of the granted patent. The data on citations in later patents (PI and PNC.G fields) and specifications of the document type (DT field) and the national classification (NCL field) are updated or amended. The application document is completed with the patent assignee name in the PPA field when the granted patent is published. The legal status of patents from IFIALL can be found in the IFICLS database.

The database is updated twice per week.

10.5 Updating

New documents appear in the database 1 day after publication.

10.6 Documents from IFIPAT

10.6.1 Patent Application

Display format: ALL

IFIALL COPYRIGHT 2013 IFI on STN
AN 14706378 IFIALL
TI Stable, Convenient Whole Food Nutritional Supplement
INF Huntsman; Heidi L., San Mateo, CA, US
IN Huntsman Heidi L
PAF Unassigned
PA Unassigned or assigned to individual (68000)
PPA Vita Vis Nutrition Inc (Probable)
PI US 20160128367 A1 20160512
AI US 2015-933175 20151105 (14)
PRAI US 2014-76101P 20141106 (Provisional)
FI US 20160128367 20160512
DT Utility; Reassigned; Patent Application - First Publication
FS CHEMICAL APPLICATION
ED Entered STN: 16 May 2016
Last Updated on STN: 21 Jun 2016
PARN RELATED APPLICATIONS This application claims priority to, and the benefit of, U.S. Provisional Application No. 62/076,101, filed on Nov. 6, 2014, which is incorporated herein by reference in its entirety.
AB The disclosure relates to shelf-stable food products that are whole food
The present invention is directed to isolated HIP41 nucleic acid and proteins, and to plants that display an altered oil content phenotype due to altered expression of a HIP41 nucleic acid. The invention is further directed to methods of generating plants with an altered oil content phenotype.

Subject to any Disclaimer, the term of this patent is extended or
A method of producing oil comprising: introducing into progenitor cells of the plant a plant transformation vector comprising a nucleotide sequence that encodes a HIO41 polypeptide comprising the amino acid sequence set forth as SEQ ID NO:2, or an amino acid sequence having at least 95% sequence identity to the amino acid sequence set forth as SEQ ID NO:2; growing the transformed progenitor cells to produce a transgenic plant, wherein said polynucleotide sequence is expressed; identifying the transgenic plant that exhibits a high oil phenotype relative to a plant of the same species not comprising the plant transformation vector; and recovering oil from said transgenic plant.

2. The method of claim 1, wherein the oil is recovered from a seed of the plant.

3. A method of producing a plant having a high oil phenotype, said method comprising: introducing into progenitor cells of the plant a plant transformation vector comprising a nucleotide sequence that encodes a HIO41 polypeptide comprising the amino acid sequence set forth as SEQ ID NO:2, or an amino acid sequence having at least 95% sequence identity to the amino acid sequence set forth as SEQ ID NO:2; growing the transformed progenitor cells to produce a transgenic plant, wherein said polynucleotide sequence is expressed; and identifying the transgenic plant that exhibits a high oil phenotype relative to a plant of the same species not comprising the plant transformation vector.

4. The method of claim 3, wherein the nucleotide sequence encodes a HIO41 polypeptide having an amino acid sequence having at least 95% sequence identity to the amino acid sequence of SEQ ID NO:2.

5. The method of claim 4, wherein the nucleotide sequence encodes a HIO41 polypeptide having the amino acid sequence set forth as SEQ ID NO:2.

6. The method of claim 5 wherein the nucleotide sequence encodes a HIO41 polypeptide consisting of the amino acid sequence set forth as SEQ ID NO:2.
Lionneton et al., "Development of an AFLP-based linkage map and localization of QTLs for seed fatty acid content in condiment mustard (Brassica juncea)," Genome, 45(6):1203-1215, 2002.
O'Hara et al., "Fatty acid and lipid biosynthetic genes are expressed at constant molar ratios but different absolute levels during embryogenesis," Plant Physiol., 129:310-320, 2002.


11 INPADOCDDB / INPAFAMDB

11.1 Typical queries

- Searches by number, name or classification to elicit the bibliographical details of documents, e.g.:
  - Who filed the application for the Mexican patent, MX 167961?
  - Has the European patent, EP 0 845 799, been granted yet?
  - What patents have Philips filed in Russia?
- Information searches, technology searches – mainly in INPAFAMDB (to some extent with long retrospect)
  - What publications are there on nano-biotechnology?
  - What publications on wind turbines have there been before 1970?
- Family searches, e.g.:
  - Are there any other members of a patent family of the US patent, 6,272,657? Have any of the applications in other countries lapsed?
  - Is there an equivalent in English or German (e.g. DE, US, EP) to the Japanese patent publication numbered JP 200329388?
- Display of the legal status, e.g.:
  - Is the European patent, EP 0 313 835, still in force in Great Britain?
- Patent statistics in INPAFAMDB or, for individual countries, in INPADOCDDB:
  - What can be said on the development of ultra-wide band radar in cars in the last eight years? Which focal points can be identified?
- Citation searches, e.g.:
  - Where is the US patent, 6,200,005, being cited?
- Patent monitoring, e.g.:
  - What patents by Motorola have been published since the database was last updated?
  - Was there any change in the legal status of the European Patent, EP 1 009 573, of Kennametal Inc., concerning an opposition filed since 14 November 2003?
  - Are there any changes in the patent family of EP 1 721 523?

11.2 Brief description

Producer: European Patent Office (EPO), Austria; FIZ Karlsruhe, Germany
Period covered: Since 1782
Size: More than 70.7 million records for patent applications, more than 15.7 million records for utility model applications, more than 602,000 records for designs, more than 54 million patent families (since 1782), more than 220 million legal status data (since 1968), more than 220 million citations (since 1943) (October 2018)
Updated: Weekly
Language: Language of the original or translation into English; legal status in English
11.3 Contents

- Publications in respect of national and international patent and utility model specifications (~100 national and regional patent offices, EPO, WIPO)
  (cf. survey "Country codes and country coverage of CA, INPADOCDB, DWPI")
- Database coverage before 1968: since 1836 (US), 1840 (GB), 1879 (DE), 1900 (FR), 1944 (JP)
- Bibliographical details
- International Patent Classification (IPC), online thesaurus incl. catchwords, range searching possible, re-classification of the back-file
- Patent family details
- Legal status details:
  - Entry of PCT applications into the national stage: AP, AT, AU, BG, BR, BY, BZ, CA, CH, CN, CZ, DE, EA, EG, ES, FI, GB, GE, HR, HU, IL, JP, KE, KR, LI (über CH), LT, LV, MD, MX, MY, NZ, PH, PL, RO, RU, SE, SI, SK, UA, US, UZ, WO, ZA
  - Non-entry of PCT applications into the national stage: CA, DE, JP, KR
  - Entry/Non-entry of PCT applications into the European phase
  - European applications: application and grant are through the EPO, a few countries assign national application or publication numbers after grant: AT, CY, DE, ES, FR, IE, SM
  - Indication in EP legal status: "Corresponds To", "Entry Into National Phase" or payment of annual fees: AT, BE, BG, CH, CZ, CY, DE, DK, EE, ES, FI, FR, GB, GR, HK, HU, IE, IL, IT, LI, LT, LU, LV, MC, MD, NL, PL, PT, RO, RU, SE, SI, SK, TR
  - SPCs (Supplementary Protection Certificates): AT, DE, ES, FI, FR, IT, LT, LU, NL, SK
  - Extensions of term (patents and utility models): AT, AU, CH, CN, CZ, DE, DK, FI, FR, GB, HU, IE, IL, JP, LT, NL, NO, RU, SE, SK, US
  - Legal status details in original language
  - Start of coverage varies by country, new countries are constantly added
  - Calculated expiration dates (XPD, XPY) for 41 countries from 1980: AR, AT, AU, BE, BR, CA, CH, CN, CZ, DD, DE, DK, EA, EG, EP, ES, FI, FR, GB, GR, HK, HU, IE, IT, JP, KR, MA, MX, NL, NO, NZ, PL, PT, RU, SE, SK, SU, TR, TW, US, ZA, etc.
- Common Patent Classification (CPC), online thesaurus, range searchable;
- The European Classification (ECLA), ICO, and IDT are no longer available
- National US Classification with thesaurus (since 1836), no longer assigned since 2015, replaced by CPC
- Locarno Classification for US Design Patents (since 04/2005)
- Japanese FI- and FTERMS (from1966) with online thesaurus
- National Classifications: AT, AU, BR, CA, CH, DE, DK, ES, GB, MX, NL, SE
- Partly abstracts (32,5 million) from 50 countries since 1970: e.g. US, GB (from 1897), WO, EP, CA, DE, KR, JP, FR, CN; an English equivalent abstract ABEQ from the simple patent family is displayed in the ALL and MAX display formats if no English abstract is available for a given publication (since update week 200740)
INPADOCDB is the most comprehensive patent database with regard to the countries covered. It corresponds to the Patent Family Service (PFS) and the legal status information of the Patent Register Service (PRS). The database is updated weekly with approx. 70,000 to 1,000,000 entries updates of the bibliographical PFS and approx. 40,000 to 180,000 legal status entries in the PRS. The EPO receives the data from the patent offices or patent organisations in electronic or paper form. The EPO tries to standardise the data, but relies on the quality of the data provided. The data are in the original language, but partly (e.g. for Russian or Japanese publications) an English translation (titles) and/or transliteration (Names) is given. (For some countries (in particular JP), published applications (code JP-A2) are often entered without details of title, assignee and inventor. As soon as such details are available, they are added to the record.)

Using the priority information, documents belonging to the same patent family can be grouped together in INPADOC. This is particularly useful to find out whether an equivalent to a known document exists in another country (e.g. because of possible infringements or for better accessibility of the language).

11.4 Dynamics

The INPADOCDB database follows the static principle using segmentation. All national publications of the same patent or utility model application form one documentation unit. If there is legal status information in a document unit it will be updated regularly. Every document is assigned a family number, FN, corresponding to its patent family.

The INPAFAMDB database uses the dynamic principle. The INPADOCDB family number, FN, is used as the accession number AN of a (family) document in INPAFAMDB (AN = FN). The individual patent documents are merged into patent families anew with every update of the database, i.e. there is only one document in the database for every patent family.

11.5 Updating

New documents are entered into INPADOCDB and INPAFAMDB a few days (DE, EP, FR, GB) up to weeks (JP, US, WO) after publication.

11.6 Documents from INPADOCDB

Display format: MAXG (details of all national publications plus legal status)

The family number FN can be displayed with D FN:

```
FN     8584206
```

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 AN    23720717 INPADOCDB UP 20120705 UW 201227
 FN    8584206
 TI    Vorrichtung zum automatischen Melken von Tieren.
       A construction for automatically milking animals.
       Dispositif de traite automatique d' animaux.
 TL    German; English; French
 IN    VAN DER LELY, CORNELIS
 INS   VAN DER LELY CORNELIS, CH
 PA    MAASLAND N.V.
 PAS   MAASLAND NV, NL
 DT    Patent
 PI    EP 1029447           A2 20000823  English
 PIT   EPA2 APPLICATION PUBLISHED WITHOUT SEARCH REPORT
 DAV   20000823 unexamined printed without grant
 STA   PRE-GRANT PUBLICATION
 DS    R:           DE FR GB NL SE
 AI    EP 2000-201926          A 19941005
 AIT   EPA Patent application
```
The invention relates to a construction for milking animals, such as cows, comprising a milking robot (8) for automatically milking animals. A movable collecting member (36) for the excrements of an animal present in the construction is arranged at the trailing side of the construction.
AN 23720177 INPADOCDB UP 20120705 UW 201227
FN 8584206
TI Vorrichtung zum automatischen Melken von Tieren.
A construction for automatically milking animals.
Dispositif de traite automatique d'animaux.
TL German; English; French
IN VAN DER LELY, CORNELIS
INS VAN DER LELY CORNELIS, CH
PA LELY ENTERPRISES AG
PAS LELY ENTPR AG, CH
DT Patent
PI EP 1029447 A8 20060607 English
PIT EPB1 PATENT SPECIFICATION
STA GRANTED
DS DE FR GB NL SE
AI EP 2000-201926 A 19941005
AIP EPA Patent application
NL 1993-1753 A 19931011 (NLA, 20070614, Y)
INC 7
PCC A01K0001-01
IPC A01J0005-017 [I,A]; A01K0001-12 [I,A]; A01K0023-00 [I,A]
CPC A01J0005-017; A01K0001-12; A01K0023-005
EPC A01J0005-017A; A01K0001-12; A01K0023-00B
FA A; AN; DAV; CHG; CPC; DS; DT; EPC; ICM; ICS; IN; INS; IPC; IPCR; LA; PA;
PAS; PI; PIT; PRAI; Ti
CHG PRAI A; IPC A
AN 23720177 INPADOCDB UP 20120705 UW 201227
FN 8584206
TI Vorrichtung zum automatischen Melken von Tieren.
A construction for automatically milking animals.
Dispositif de traite automatique d'animaux.
TL German; English; French
IN VAN DER LELY, CORNELIS
INS VAN DER LELY CORNELIS, CH
PA LELY ENTERPRISES AG
PAS LELY ENTPR AG, CH
DT Patent
PI EP 1029447 A8 20060607 English
PIT EPB1 PATENT SPECIFICATION
STA GRANTED
DS DE FR GB NL SE
AI EP 2000-201926 A 19941005
AIP EPA Patent application
NL 1993-1753 A 19931011 (NLA, 20070614, Y)
INC 7
PCC A01K0001-01
IPC A01J0005-017 [I,A]; A01K0001-12 [I,A]; A01K0023-00 [I,A]
CPC A01J0005-017; A01K0001-12; A01K0023-005
EPC A01J0005-017A; A01K0001-12; A01K0023-00B
FA A; AN; DAV; CHG; CPC; DS; DT; EPC; ICM; ICS; IN; INS; IPC; IPCR; LA; PA;
PAS; PI; PIT; PRAI; Ti
CHG PRAI A; IPC A

LEGAL STATUS

AN 23720717 INPADOC DB

20000823 EPAC DIVISIONAL APPLICATION (ART. 76) OF:
EP 647390 P

20000823 EPAK + DESIGNATED CONTRACTING STATES:
EP A2
DE FR GB NL SE

20010808 EPAK + DESIGNATED CONTRACTING STATES:
EP A3
DE FR GB NL SE

20020123 EP17P + REQUEST FOR EXAMINATION FILED
20011126
EXA Examination, Search Report

20020502 EPAKX + PAYMENT OF DESIGNATION FEES
DE FR GB NL SE

20040303 EP17Q + FIRST EXAMINATION REPORT
20040116
EXA Examination, Search Report

20040324 EPRAP1 TRANSFER OF RIGHTS OF AN EP APPLICATION
MAASLAND N.V.

20050119 EPRAP1 TRANSFER OF RIGHTS OF AN EP APPLICATION
LELY ENTERPRISES AG

20050304 EPEL + FR: TRANSLATION OF CLAIMS FILED

20050331 EPDET DIVISIONAL APPLICATION (ART. 76) OF:
EP 0647390 P

20060628 EPEL + DESIGNATED CONTRACTING STATES:
EP B1
DE FR GB NL SE

20060628 EPREG REFERENCE TO A NATIONAL CODE
GBFG4D + GB: EUROPEAN PATENT GRANTED

20060610 EPREF CORRESPONDS TO:
DE 69434780 P 20060810

20061003 EPREG REFERENCE TO A NATIONAL CODE
SETRGR + SE: TRANSLATION OF GRANTED EP PATENT

20070216 EPET + FR: TRANSLATION FILED

20070509 EP26 - OPPOSITION FILED
DELAVAL HOLDING AB
20070327
ORE Opposition, Reexamination

20070702 EPNL01 NL: OPPOSITION HAS BEEN FILED WITH THE EPO
DELAVAL HOLDING AB

ORE Opposition, Reexamination

20090909 EPR26 - OPPOSITION FILED (CORRECTION)
DELAVAL HOLDING AB
20070327
ORE Opposition, Reexamination

20101124 EPR26 - OPPOSITION FILED (CORRECTION)
DELAVAL HOLDING AB
20070327
ORE Opposition, Reexamination

20110131 EPPGFP POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
FR: 20101105
Payment Year: 17

20110203
Patent databases on STN International

20110131 EPPGFP + POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
NL: 20101024
Payment Year: 17
.......................................20110203

20110228 EPPGFP + POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
DE: 20101027
Payment Year: 17
.......................................20110303

20110331 EPPGFP + POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
GB: 20101025
Payment Year: 17
.......................................20110407

20110331 EPPGFP + POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
SE: 20101027
Payment Year: 17
.......................................20110407

20120118 EPR26 - OPPOSITION FILED (CORRECTION)
DELAVAL HOLDING AB
20070327
ORE Opposition, Reexamination
20120120

20120222 EPGBPR - GB: PATENT REVOKED UNDER ART. 102 OF THE EP CONVENTION
DESIGNATING THE UK AS CONTRACTING STATE
20110630
NIF Lapses, Expiries, Withdrawals, Refusals
.......................................20120223

20120222 EP27W - REVOKED
20110630
NIF Lapses, Expiries, Withdrawals, Refusals
.......................................20120223

20120515 EPREG - REFERENCE TO A NATIONAL CODE
SEECNC - SE: EUROPEAN PATENT HAS BEEN CANCELLED
NIF Lapses, Expiries, Withdrawals, Refusals
.......................................20120517

The LS (Legal Status) field contains the legal status information of the patent application. Every entry consists of the parts: Date of publication in the official gazette of the respective patent office (e.g. for the European Patent Office: EPO Bulletin), a code for the Status type, occasionally a code for the Type of priority or application and the Text. The Text gives information on the actual status or status change, the effective date (if applicable), the names of persons concerned (e.g. opponent) and the numbers of other patent publications concerned (e.g. in case of division or addition). Legal status categories combine all codes on a certain topic, e.g. ORE – Opposition, Reexamination. The parts of a legal status entry are searchable. The legal status can also be displayed in original language (LSO).

The complete international patent family is compiled using the priority data and can be displayed with predefined family formats.

Display format: FAM

P A T E N T   F A M I L Y   I N F O R M A T I O N
AN   23720717   | INPADOCDB

+-----------+PRAI+-----------+
NL 1993-1753 A 19931011 DE 1994-69426379 A 19941005

+-----------+AI+-----------+
DE 1994-69426379 A 19941005 DE 69426379 D1 20010111
DE 1994-69434780 A 19941005 DE 69434780 T2 20010613
DE 1994-22280 U 19991007 DE 9422280 U1 19991007
DE 2000-201926 A 19941015 DE 2000-201926 T1 20050331

+-----------+P|+-----------+
DE 1994-69426379 A 19941005 DE 69426379 D1 20010111
DE 1994-69434780 A 19941005 DE 69434780 D1 20060810
DE 1994-22280 U 19991007 DE 9422280 U1 19991007
DE 2000-201926 A 19941015 DE 00201926 T1 20050331
Guide to STN Patent Databases

2 priorities, 7 applications, 14 publications, (2 EPO simple families)

Display format: CFAM:

PATENT FAMILY INFORMATION
AN 23720717 INPADOCDB

+................+|................+
DE 69426379   D1 20010111
DE 69426379   T2 20010613
DE 69434780   D1 20060810
DE 69434780   T2 20070614
DE 9422280    U1 19991007
DE 00201926   T1 20050331
EP 1029447    A2 20000823
EP 1029447    A3 20010808
EP 1029447    A8 20060607
EP 1029447    B1 20060628
EP 647390     A2 19950412
EP 647390     A3 19950614
EP 647390     B1 20001206
NL 9301753    A  19950501

2 priorities, 7 applications, 14 publications, (2 EPO simple families)

These family formats are available (it is recommended to use DISPLAY BROWSE; for a comprehensive list see the database description):

Family display at full price:

- All display fields and display formats with appended .F display the respective field for all family members, e.g. TI.F; in addition there are TIPL.F, PILS.F and BIBLS.F
- FAM: Table PRAI – AI – PI
- FAM2: Table PRAI – PI, AI – PI
- CFAM: Condensed FAM, only PI of the FAM table
- CFAM2: Condensed FAM (PI → AI; PRAI)
- SFAM: see CFAM2, but sorted by the EPO “simple patent family”
- FAML: see CFAM2, plus a list of all legal status entries, sorted by legal status date LSD
- EFAM: Extended Patent Family Information, see FAM but the priority information is used as heading for the AI – PI tables
- FFAM: Full Family Format, MAX.M format (full bibliographical and legal status data) for all members of the patent family
- MFAM: Full Family Format with abstracts (if available)
- LFAM: Publication information (PI field) plus legal status information
- DFAM: Delimited Family Format, table of priority, application and publication information delimited for post-processing, SET LINELENGTH 110 is recommended
- IFAM: Indented Family format, display of: TI; Table PI – AI, PRAI; IMAX.F (full format with legal status for all family members, indented field names), heading (country name, country code) for the display of IMAX.F
- TIPL.F: TI + LS for all family members
Patent databases on STN International

- PILS.F: PI + LS for all family members
- BIBLS.F: BIB + LS for all family members
- CITN: RE + CGB for all family members

Display formats for family SDI:
- FFAMUP: Updated information in the bibliographic fields and/or legal status of a patent family
- LFAMUP: PI (Publication Information) and LSUP (legal status changes) of a patent family
- FFAMED: new publication levels/new members and/or legal status changes of a patent family
- IFAMUP: indented FAM plus patent family table

Family displays at reduced price:
- FFAM.PC: FFAM for one publication country only (possible for all countries)
- FFAMUP.PC: FFAMUP for one publication country only (PC = AT AU BE CA CH DE DK EP ES FI FR GB GR IE IL IT JP KR HU NL NO RU SE US WO O)
- FFAMED.PC: FFAMED for one publication country only (PC = AT AU BE CA CH DE DK EP ES FI FR GB GR IE IL IT JP KR HU NL NO RU SE US WO)
- LFAMUP.PC: LFAMUP for one publication country only (PC = AT AU BE CA CH DE DK EP ES FI FR GB GR IE IL IT JP KR HU NL NO RU SE US WO)
- MFAM.PC: MFAM for one publication country only

11.7 Document from INPAFAMDB

Display format: BRIEF (Default, de-duplicated format – content that appears repeatedly in the patent family is displayed only once)

AN 8584206 INPAFAMDB UPFB 20070816 UWF 200827
TI Konstruktion zum automatischen Melken von Tieren.
- Vorrichtung zum automatischen Melken von Tieren.
- Vorrichtung zum Melken von Tieren.
- A construction for automatically milking animals.
- Dispositif de traite automatique d'animaux.
- Inrichting voor het automatisch melken van dieren.
INS VAN DER LELY CORNELIS, CH
PAS MAASLAND NV, NL
- LEIL ENTPR AG, CH
- TEXAS INDUSTRIES INC, NL
- TEXAS INDUSTRIES INC, AN
- TEXAS INDUSTRIES INC
IPCI A01J0005-017 [I,A]: A01K0001-01 [I,A]
IPCR A01J0005-017 [I,A]: A01K0001-12 [I,A]; A01K0023-00 [I,A]
EPC A01J0005-017A; A01K0001-12; A01K0023-00B
AB (EP 1029447 A2)
The invention relates to a construction for milking animals, such as cows, comprising a milking robot (8) for automatically milking animals. A movable collecting member (36) for the excrements of an animal present in the construction is arranged at the trailing side of the construction.
Guide to STN Patent Databases

2 priorities, 7 applications, 14 publications, (2 EPO simple families)

Display formats: The family formats from INPADOCDB are also available in INPAFAMDB.

De-duplicated formats: These exist to allow a quick survey of the patent family. Every content that appears repeatedly in the patent family is displayed only once. The default format in the database is the de-duplicated format BRIEF. This format displays the de-duplicated bibliographical details, a selected abstract and the family information (PI, AI, PRAI).

All display fields (TI, PA, IN, etc.) and the display formats (BIB, ALL, etc.) in INPAFAMDB relate to the patent family and have de-duplicated contents. More formats are described in chapter “Family search”.

### 11.8 When to use which database

<table>
<thead>
<tr>
<th>INPADOCDB</th>
<th>INPAFAMDB</th>
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</thead>
<tbody>
<tr>
<td><strong>Subject search, search for bibliographical details</strong></td>
<td><strong>Technology survey</strong> (contents of all applications in a patent family is combined in one document, allows to search across all these applications)</td>
</tr>
<tr>
<td>– Search by application/publication</td>
<td>– Overview of legal status of a patent family</td>
</tr>
<tr>
<td><strong>Legal status search</strong></td>
<td><strong>SDI search</strong></td>
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</table>
| – Search for/display of legal status of individual applications | – Overview by company/inventor
– Search and statistics by country |
| **Family search** | – Search for new inventions/patent families
– Family formats |
| – Family formats
– FSEARCH/FSORT to group a search result by patent family | – Family formats
– FSEARCH/FSORT is not necessary! |
| **Patent statistics** | **Miscellaneous** |
| – Search and statistics by country | – De-duplication in format BRIEF (Default) and other display fields
– Multi-file Family SDI in combination with CAPLUS and WPI |
| **Miscellaneous** | – Easy identification of the family in full-text searches |

| 74 |
12 JPFULL

12.1 Typical queries
- Searches for the state of the art in Japan (text and classification), e.g.:
  - What JP applications are there on Battery Management in Hybrid Vehicles?
- Name searches (inventor, applicant), e.g.:
  - What JP applications by Toyota Motor Corp were published during the past year?
  - What JP applications are there by Mr Yamamoto Shingo of Toyota Motor Corp?
- Searches using formal data (e.g. numbers), e.g.:
  - What is there in the text of the Japanese utility model, JP 3179793?
  - We are looking for Japanese publications citing the priority country DE and having a priority year from 2005 to 2010 in the field of A61L 27 (Materials for prostheses).
- Full-text display of Japanese applications:
  - What are the claims of the JP publication numbered 2012213658?
- Search by a numerical property in the full text:
  - Search by a nanometer length.
- Legal status display
- SDI searches for Japanese applications
- Using the full text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

12.2 Brief description
Producer: Questel, France
Period covered: Since 2000
Size: More than 6.2 million records on patents, utility models, and designs;
more than 6 million full texts (October 2018)
Updated: Weekly
Language: English

12.3 Contents
- Full text from patent applications, granted patents and utility models published in Japan
- Bibliographical details, including patent applicant, inventor, and representative
- The title and abstract of published applications are first entered as machine translations or taken from equivalents available. They are replaced with human-translated texts within 3 months. The description and claims are machine-translated.
- Title, patent applicant, inventor, and representative can in addition be displayed in Japanese writing.
- International Patent Classification (IPC), IPC thesaurus, range-searchable
- Cooperative Patent Classification (CPC), thesaurus
- European Patent Classification (ECLA), ECLA thesaurus, range-searchable, other European classifications: ICO, IDT, the codes are retained as historic data
Legal status details are taken from INPADOCDB and can be displayed in the fields LS, LS2, FAM, and CFAM. The legal status is not searchable. Citations are also taken from INPADOCDB.

Numerical values of more than 55 physical and chemical properties in all full-text fields

Some of the texts are created using an Optical Character Recognition (OCR) software, i.e. there may be errors and omissions of text portions

### 12.4 Dynamics

The JPFULL database follows a mixed principle using segmentation. All publications of the same patent application form one documentation unit. Each document is entered into a separate record and will not be updated. The legal status in INPADOCDB is continuously updated.

### 12.5 Updating

New documents are entered into the database 14 days after publication.

### 12.6 Document from JP FULL

Display format: ALL

```
AN 2008114975 JP FULL ED 20130130 UP 20180126 EDTX 20121005 Full-text
TIE Wireless communication system, the radio base station apparatus, 
multi-service management device
TJA 無線通信システム、
無線基地局装置、マ 
ルチサービス管理装 
置
IN Yoshiaki Fukunaga; Hasegawa Hazime
INJA 福永 吉晃
長谷川 一
PA FUJITSU LTD
PAJA 富士通株式会社
PAN 000009223
AG Sakai Hiroaki
LAF Japanese
LA Japanese
DT Patent; (Full-text)
PI T JP82 GRANT. PATENT WITH A [FROM NO. 2500000 ONWARDS, FROM 1996]
PI J P 5115273 B2 20130109
PI J P 2008-88393 20080328
PI J P 2008-88393 A 20080328
PCI H04W0004-06 [I,A]; H04W0028-18 [I,A]; H04W0072-04 [I,A]; H04W0088-02 
[I,A]
EPC H04W0072-005; H04W0028-16
EPC H04W0072-008
AB A wireless communication system includes a multi service supplying unit 
(2) which transmits the same data to a plurality of user equipment (110, 
120, 130, ...) and a quality evaluation result collecting unit (2b) 
which collects quality evaluation results of a multi service from the 
plurality of user equipment. The wireless communication system includes 
a resource controlling unit (2a) which controls shared wireless 
communication resources used for the multi service according to the 
quality evaluation results.
AB (From EP2106181 A2)
DETD TECHNICAL FIELD. The present invention, a plurality of wireless mobile 
terminal transmits the data of the same contents is performed to the 
multi-service wireless communication system, the radio base station 
apparatus and the system X3001 multi-service management device.
```
1. The multiple service offer expedient which transmits the data of identical contents vis-a-vis the plural radio portable terminals and, The quality evaluation result collection expedient which collects the quality evaluation result of the aforementioned multiple service from the aforementioned plural radio portable terminals and, On the basis of the quality evaluation result every of aforementioned multiple service, modifying the band which is used for the aforementioned multiple service, the resource control means which control the distribution of the radio communication resource which you use for the aforementioned multiple service and, The radio communication system which features that it has.

6. Mean value of reception quality level is calculated from the quality evaluation result where the aforementioned quality evaluation result collection section collected, in the claim 5 which features that furthermore it has the decision section which decides whether or not modification of distribution of the aforementioned radio communication resource is executed with the comparison with the particular mean value and threshold the multiple service management device of statement.
13 KOREAPAT

13.1 Typical queries
- Searches for the state of the art in Korea (text and classification), e.g.:
  - What inventions were made in Korea on Wind Power Generators?
- Name searches (inventor, applicant), e.g.:
  - What inventions of Samsung have been published in Korea during the past year?
  - What patent applications are there in Korea of Mr Richard Wells from Lucent Technologies?
- Searches using formal data (numbers: publication number, application number), e.g.:
  - What is contained in the Korean unexamined application numbered KR 2004024835?
  - Who is the owner of the granted patent numbered KR 368043?

13.2 Brief description
Producer: Korean Institute of Patent Information (KIPI), Seoul, Korea on behalf of the Korean Intellectual Property Office (KIPO)
Period covered: Since 1979
Size: More than 2.4 million records, more than 2.2 million patent images (October 2018)
Updated: Monthly
Languages: English

13.3 Contents
- Extracts from Korean granted patents from 1979 to 2001, extracts from unexamined Korean patent applications from 2000
- Granted patents after 2001 may be available if the application was not published
- Bibliographical details, title, names (inventor, applicant)
- International Patent Classification (IPC), IPC thesaurus with catchwords, range search possible, no re-classification of the back-file
- Abstracts
- Patent drawing

13.4 Dynamics
The KOREAPAT database follows the static principle: either the unexamined application or the examined one is available. If documents were incomplete upon entry text fields will be added later. The IPC is updated.

13.5 Updating
The documents are entered into the database three months after publication.
PURPOSE: A gas burner with an igniting apparatus is provided to improve user convenience by easily rotating a rotation lever through the use of a guide ball.

CONSTITUTION: A gas burner comprises a burner head (10), an opening/closing valve (20) for adjusting the amount of gas supplied to the burner head, and an igniter (30) for igniting the burner head by being operated simultaneously with the opening/closing valve. The igniter includes a button lever (34) shaft-coupled onto a housing (31) of the igniter so that the button lever is pressed to the same direction as a rotating lever (22) while the opening/closing valve is closed. The igniter includes a support lever (100) coupled to the lateral surface of the housing so that the support lever is protruded in the same direction as the rotating lever while the opening/closing valve is closed. The support lever is arranged to be engaged with the rotating lever. The igniter has a guide ball which partially contacts the button lever with respect to the bottom surface of the rotating lever so that the rotating lever smoothly rotates.

COPYRGT. KIPO 2007
14 PATDPAFULL

14.1 Typical queries

- Searches for the state of the art in DE publications (text and classification), e.g.:
  - What German inventions are there on Neurofeedbacksystems bei der Therapie von neuronalen Krankheiten (Neuro-feedback systems in the therapy of neural diseases)?
- Name searches (inventor, applicant), e.g.:
  - What inventions of ROLLS ROYCE have been published in Germany during the past year?
  - What patent applications are there in Germany of Mr Gerhard Schröder concerning furniture?
- Searches using formal data (numbers: publication number, application number), e.g.:
  - What is contained in the patent numbered DE 10 2004 012 732?
  - Are there any differences in the German patent, DE 103 53 485, compared to the publication of the application?
- Full-text display of German patents, patent applications and utility models:
  - What are the claims of the German application numbered DE 10 2004 018 950?
- Legal status display:
  - Is the patent numbered DE 101 41 506 in force?
- SDI searches for German patents
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

14.2 Brief description

Producer: Deutsches Patent- und Markenamt (DPMA), Germany
Period covered: Since 1987 (bibliographical data since 1981)
Size: More than 2.5 million records on patents (full texts), more than 563,000 records on utility models (full texts), more than 736,000 patent images (January 2018)
Updated: Weekly
Languages: German

14.3 Contents

- Full text from German patents and patent applications published by DPMA since 1987
- Translations of European Patents (T2, T3, T4) since 1993
- Claims of German utility model publications since 1999
- No documents of EP or WO applications
- Bibliographical details, title, names (inventor, applicant, agent)
- International Patent Classification (IPC), IPC thesaurus, range search possible, no re-classification of the back-file
- Details on citations, related documents
In addition to the full-text documents the bibliographical details of all DE documents since 1981 are available

- Drawings from front pages (if available) since 2004
- DET1 publications (German translation of WO applications in other languages than German) are not available in (ASCII) text format, this publication type is therefore not available in PATDPAFULL.
- Legal status information from INPADOCDB can be displayed (LS, LS2, FAM and CFAM field) but is not searchable in PATDPAFULL.

### 14.4 Dynamics

The PATDPAFULL database follows a mixed principle using segmentation. Each document is entered into a separate record and will not be updated.

Records of T type documents contain the publication number of the EP document and in the case of Euro-PCT applications the WO number in the PI field.

### 14.5 Updating

New data are entered in the database 2...3 days after the DPMA publication date.

### 14.6 Document from PATDPAFULL

Display format: MAXG LS (both publication levels)

**Publication open to public inspection (Offenlegungsschrift)**

**AN** DE102004063909 PATDPAFULL ED 20051103 EW 200544

**TI** Schwimmhilfe als Weste

**IN** Antrag auf Nichtnennung (AANN) Antrag auf Nichtnennung

**PA** Meissner, Joerg, 99326 Stadtilm, DE

**DT** Patent

**PIT** DEA1 Offenlegungsschrift

**PITX** DEA1-406 OFFENLEGUNGSSCHRIFT, 8-MONATS-AKTEN

**PI** DE 102004063909 A1 20051103

**AI** DE 2004-102004063909 A 20040322

**PRAI** DE 2004-102004063909 A 20040322

**ICM** A63B0031-00

**ICS** B63C0009-11


(Hauptanspruch auf der Titelseite, 00000001.tif)

**DETD** [0001] Die Erfindung betrifft leichte, hochelastische Schwimmhilfen, welche der Koerpergroesse flexibel uber etliche Konfektionsgroessen genau angepasst werden koennen.


... Aufgabe der Erfindung


[0010] Mit der Erfindung werden gewissermassen Unigroessen geschaffen,
das heisst durch die sehr grosse Variabilitaet der
Einstellmoeglichkeiten bei den Schwimmhilfen koennen je nach Ausfuehrung
bei Kindern z.B. die Groessen 92 bis 122 und bei Erwachsenen z.B. die
Groessen M bis XL mit einer Groesse der Schwimmhilfe abgedeckt werden.
Bei Kindern “waechst” diese Schwimmhilfe so praktisch mit.

Beispiele

[0019] Die Erfindung wird im folgenden durch Ausfuehrungsbeispiele
naeher beschrieben.

[0020] In den Zeichnungen sind nicht einschraenkende Beispiele fuer die
Anwendung und Ausfuehrung von Schwimmhilfen gemaess der Erfindung
dargestellt, wobei:

Bezugszeichenliste

10 Seitenlasche zur Anpassung an Koerpergroesse
11 Schulterlasche zur Anpassung des Armausschnittes
12 Absteppung
13 Aufhaenger
14 Reissverschluss
15 Seitenlasche mit Haken- Klettband
16 Schulterlasche mit Haken- Klettband
17 Seitenlasche mit Flausch- Klettband
18 Schulterlasche mit Flausch- Klettband
25 Reissverschluss sicherung

CLM 1. Schwimmhilfe als Weste ausgebildet, dadurch gekennzeichnet, dass die
Weste fuer variable Koerpergroessen einstellbar ist, wobei hierzu der
Hueftbereich mit einstellbarer wiederverschliessbarer Verschluessstechnik
z.B. Seitenlaschen mit Klettbaendern (10, 15, 17) versehen ist und zum
bequemeren und schnelleren An und Ausziehen ohne die exakte
Koerpergroesseneinstellung der Schwimmhilfe zu veraendern ein
zusatzlicher wiederverschliessbarer Verschluss vorgesehen ist.

8. Schwimmhilfe nach Anspruch 1, dadurch gekennzeichnet, dass die Weste
Kammern aus Wasser- und luftdichtem Material aufweist, welche
luftbefueellt, gegebenenfalls in Kombination mit anderen schwimmaeigenen
Materialien, den Auftrieb gewaehrleisten.

Es folgen 3 Blatt Zeichnungen
Schwimmenlernen und zur Sicherheit am und im Wasser, im Zusammenhang verschiedener sportlicher und freizeitlicher Aktivitäten, getragen werden.
(Hauptanspruch auf der Titelseite, 00000001.tif)

Würdigung Stand der Technik

0001 Die Schwimmhilfe gemäß der Erfindung kann bei Kindern und gleichermassen bei Erwachsenen Anwendung finden.


Aufgabe der Erfindung


Beispiele

0019 In den Zeichnungen sind nicht einschränkende Beispiele für die Anwendung und Ausführung von Schwimmhilfen gemäß der Erfindung dargestellt, wobei:

0020 Fig. 1 und Fig. 2 eine westenförmige Schwimmhilfe für Kinder, wobei Fig. 1 die Ansicht von vorn und Fig. 2 die Ansicht von hinten gemäß der Erfindung zeigen. Bei dieser Darstellung ist die Schwimmhilfe aus Textilstoff genäht und mit geschlossenzelligem Schaumplatten gefüllt. Bei dieser Ausführungsform sind alle Laschen aus Sicherheitsgründen nach hinten zu schließen und der Reissverschlussgriff ist mit einer Abdeckung gesichert.

Bezugszeichenliste

10 Seitenlasche zur Anpassung an Körpergröße
11 Schulterlasche zur Anpassung des Armausschnittes
12 Absteppung
13 Aufhaenger
14 Reissverschluss
15 Seitenlasche mit Haken- Klettband
16 Schulterlasche mit Haken- Klettband
17 Seitenlasche mit Flausch- Klettband
18 Schulterlasche mit Flausch- Klettband
25 Reissverschlußsicherung

1. Schwimmhilfe als Weste ausgebildet, dadurch gekennzeichnet, dass die Weste für variable Körpergrössen einstellbar ist, wobei hierzu der Hüftbereich mit einstellbarer wiederverschließbarer Verschlusstechnik z.B. Seitenlaschen mit Klettbandern (10, 15, 17) versehen ist und zum bequemeren und schnelleren An- und Ausziehen ohne die exakte Körperformeinstellung der Schwimmhilfe zu verändern ein zusätzlicher Wiederverschließbarer Verschluss vorgesehen ist.

2. Schwimmhilfe nach Anspruch 1, dadurch gekennzeichnet, dass der Armausschnitt variabel einstellbar ist, wobei hierzu an dem Rückenteil und an dem Vorderteil im oberen Bereich ein einstellbarer wiederverschließbarer Verschluss, z.B. Schulterlasche mit Klettband (11, 16, 18) vorgesehen ist.
8. Schwimmhilfe nach Anspruch 1, dadurch gekennzeichnet, dass die Westen Kammern aus wasser- und luftdichtem Material aufweist, welche luftbefüllt, gegebenenfalls in Kombination mit anderen schwimmfähigen Materialien, den Auftrieb gewährleisten.

Es folgen 3 Blatt Zeichnungen

INPADOC Legal status

LEGAL STATUS | INPADOCDB | COPYRIGHT 2010 | EPO / FIZ KARLSRUHE on STN
AN | DE102004063909 PATDPAFULL
20040322 DEA PRI Patent application
20040322 DEA3 PRI Prior application claimed for a division
20040322 DEA APP Patent application
20051103 DEA1 PUB DOC. LAID OPEN (FIRST PUBLICATION)
20051103 DEAC DIVIDED OUT OF
20051103 DEOP8 + REQUEST FOR EXAMINATION AS TO PARAGRAPH 44 PATENT LAW
20051208 DE8122 LIC Nonbinding interest in granting licenses declared
20060713 DE8364 + NO OPPOSITION DURING TERM OF OPPOSITION
15 PCTFULL

15.1 Typical queries

- Searches for the state of the art in PCT publications (text and classification), e.g.:
  - What PCT applications are there on ski poles?
- Name searches (inventor, applicant), e.g.:
  - What PCT applications of Halliburton have been published during the past year?
  - What PCT applications are there of Mr Bertram Pitt?
- Searches using formal data (e.g. numbers), e.g.:
  - What is contained in the PCT application numbered WO 2004/112552?
  - We are looking for the full-text of an application of the company Sartorius of 11 June, 2004.
- Full-text display of PCT patents:
  - What are the claims made in the WO publication numbered 2001/010152?
- Display of legal status data
- Monitoring PCT applications
- Using the full-text to find material for an opposition
- Multi-file searches in combination with other national or regional patent databases

15.2 Brief description

Producer: LexisNexis Univentio B.V., Netherlands
Period covered: Since 1978
Size: More than 3.4 million records on PCT applications, more than 3.4 million full texts, more than 2.6 million patent images (October 2018)
Updated: Weekly
Languages: English, French, German, Spanish

15.3 Contents

- Full-text of published PCT applications published by the WIPO (currently 186 member countries)
- Bibliographical details
- Title in English and French, for documents in German or Spanish a title in the respective language is provided
- Numeric values of over 35 physical and chemical properties in almost 400 units
- International Patent Classification (IPC), IPC thesaurus, range searching is possible, re-classification of the back-file
- Cooperative Patent Classification (CPC), thesaurus, range-searchable
- European Patent Classification (ECLA), thesaurus, range-searchable; other European classifications: ICO, IDT, the codes are retained as historical data
- The international (W) and regional (RW) designations are shown in the Designated States DS field. The designating institutions are listed for regional (RW) designations:
Guide to STN Patent Databases

- **EPO**: European Patent Office
- **ARIPO**: African Regional Intellectual Property Organisation
- **EAPO**: Eurasian Patent Convention
- **OAPI**: African Organization of Intellectual Property

Designations for Patents and Utility Models (German, Austrian, etc.) are listed separately.

- Priority application numbers are not standardized in the PRN field.
- Legal status information from INPADOCDB can be displayed (LS, LS2, FAM and CFAM field) but is not searchable in PCTFULL.
- Drawings from the first page of the publication.
- The text fields are generally available in one of the official WIPO languages (English, French, Spanish, German, Russian, Japanese, Chinese, Korean). Some texts are available in other languages (Italian, Finnish, Portuguese).
- English machine translations of the Title, Abstract, Description and Claims are available for the following languages: French, Spanish/Castilian, German, Russian, Japanese, Chinese, and Korean. Documents in certain filing languages contain the Patent Applicants, Inventors, Legal Representatives (names and partly addresses) for display both in the original language and in an English transliteration (e.g. from Russian, Chinese, Korean, Japanese).
- Certain characters from the original languages (e.g. accents, umlauts, Cyrillic or Asian characters) are displayed in the respective “Original Language” fields. The “Field Availability Index” field contains information on the availability of names (Patent Applicants, Inventor, Legal Representative) and text fields (Titles, Abstracts, Description, Claims in the various languages).
- All texts are created by Optical Character Recognition (OCR) software. This means that there may be errors and incomplete text. Some of the documents do not have text because the scanning failed.

### 15.4 Dynamics

The PCTFULL database follows the static principle; documents once entered are not updated.

### 15.5 Updating

Publications appear in PCTFULL approx. 1 to 2 weeks after the date of publication.

### 15.6 Document from PCTFULL

Display format: MAXG LS (Line length 101)

```
AN 2006061274  PCTFULL ED 20101203 UP 20101203 EDTX 20101203
DUPD 20100929
TIFR MODULE DE PUCE ET SON PROCEDE DE PRODUCTION
TIDE CHIPMODUL UND VERFAHREN ZU DESSEN HERSTELLUNG
IN LUDWIG, Ronny, Kastanienweg 38, 72770 Reutlingen, DE, [NAT: DE, RES: DE], for US only;
ROBERT BOSCH GMBH, Postfach 30 02 20, 70442 Stuttgart, DE, [NAT: DE, RES: DE], for all designated states except US;
LUDWIG, Ronny, Kastanienweg 38, 72770 Reutlingen, DE, [NAT: DE, RES: DE], for US only;
LUDWIG, RONNY, [NAT: DE, RES: DE], for US only
AG ROBERT BOSCH GMBH, Postfach 30 02 20, 70442 Stuttgart, DE
LA German
DT Patent: (Full text)
PI WO 2006061274 A1 20060615
```
The invention relates to a chip module, particularly for optical and stress-sensitive measurements, comprising at least the following: a premold housing (1) consisting of a housing body (10) which is made of a plastic or epoxy resin material and provided with a housing edge (16) and a housing...

ABFR
L'invention concerne un module de puce, servant notamment à des mesures optiques et sensibles aux contraintes, présentant au moins: un boîtier pré-moule [1], qui comprend un corps [10] constitué d'une matière plastique ou d'une résine époxy, comportant un bord [16] et un fond [15], ainsi qu'une...

ABDE

DETDEN
1. Chip module, in particular for optical or stress-sensitive applications, which exhibits at least: a Premoldgehäuse [1], which exhibits a housing body (10) with an edge of housing (16) and a housing bottom (15) and one, gefertigen from a Kunststoffoder epoxy resin material, into the housing body (10) injected Leadframe (14) with several Leads (5), which by the housing body (10) extend and are so curved that they lie exposed in each case in the interior (17) of the Premoldgehäuses (1) in Bondpads (20) and on the lower surface (15a) of the housing bottom (15) in ball Pads (6, 7), and at least one chip (26, 28, 30a, b), in that Premoldgehäuse (1) is fastened and Kontaktspans (44) exhibits, which with the Bondpads (20) the Leads (5) over itself is contacted by the interior (17) of the Premoldgehäuses (1) extending wire bonds (46).

2. Chip module according to requirement 1, by the fact characterized that the Premoldgehäuse (1) mount by a Surface technology - procedure can be mounted.

DETDDE
[0001] Chipmodul und Verfahren zu dessen Herstellung
Die Erfindung betrifft ein Chipmodul mit einem mikromechanisch strukturierten Sensorelement für optische oder stressempfindliche Messungen, das insbesondere im Automotive-Bereich verwendbar ist, sowie ein Verfahren zu dessen Herstellung.

Derartige Chipmodule können insbesondere Gassensormodule mit Sensorchips zur Detektion von CO₂ sein, die z.B. in CO₂-betriebenen KfZ-Klimaanlagen zur Detektion von Leckagen verwendet werden.

1. Chipmodul, insbesondere für optische oder stressempfindliche Anwendungen, das mindestens aufweist: ein Premoldgehäuse (1), das einen aus einem Kunststoff oder Epoxidharzmaterial gefertigten Gehäusekörper (10) mit einem Gehäuserand (16) und einem Gehäuseboden (15) und einen in den Gehäusekörper (10) eingespritzten Leadframe (14) mit mehreren Leads (5) aufweist, die sich durch den Gehäusekörper (10) erstrecken und derartig gebogen sind, dass sie jeweils im Innenraum (17) des Premoldgehauses (1) in Bondpads (20) und auf der Unterseite (15a) des Gehäusebodens (15) in Ball-Pads (6, 7) freiliegen, und mindestens einen Chip (26, 28, 30a, b), der in dem Premoldgehause (1) befestigt ist und Kontaktpads (44) aufweist, die mit den Bondpads (20) der Leads (5) über sich durch den Innenraum (17) des Premoldgehauses (1) erstreckende Drahtbonds (46) kontaktiert sind.

2. Chipmodul nach Anspruch 1, dadurch gekennzeichnet, dass das Premoldgehäuse (1) durch ein Surface mount technology-Verfahren montierbar ist.

LEGAL STATUS

AN 2006061274 PCTFULL
20041207 DEA PRI Patent application
DE 2004-102004058815 A 20041207
20051012 WOW APP International application Number
20060615 WOA PUB INTERNATIONAL APPLICATION PUBLISHED WITH INTERNATIONAL SEARCH REPORT
WO 2006061274 A1 20060615
20060615 WOAK + DESIGNATED STATES
WO A1
AE AG AL AM AT AU AZ BA BB BR BW BY BZ CA CH CN CO CR CU CZ DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KM KR KZ LC LL LR LS LT LU LV LY MA MD MG MK MN MW MX MZ NA NG NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SM SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
20060615 WOAL + DESIGNATED COUNTRIES FOR REGIONAL PATENTS
WO A1
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20080102 WO122 EP: THE EPO HAS BEEN INFORMED BY WIPO THAT EP WAS DESIGNATED IN THIS APPLICATION
20080102 WO121 EP: PCT APP. NOT ENT. EUROP. PHASE
EP 05791978 A1
16 **RDISCLOSURE**

16.1 **Typical queries**
- Searches for the state of the art in technical disclosure publications (world-wide, free-text only) to complement searches in other international patent databases, e.g.:
  - What European inventions are there on Bar code labels?
- Name searches (applicant only; often anonymous), e.g.:
  - What technical disclosure of International Business Machines Corporation has been published during the past year?
- Searches using formal data (e.g. numbers), e.g.:
  - What is in the text of the technical disclosure, RD 460128?
- Full-text display of technical disclosure:
  - What is the text of RD 420006?
- Using the full-text to find material for an opposition

16.2 **Brief description**
- **Producer:** Questel Ireland Ltd, Ireland
- **Period covered:** Since 1960
- **Size:** More than 46,800 records (October 2018)
- **Updated:** Monthly
- **Languages:** 90% English (plus French, German, Spanish, etc.)

16.3 **Contents**
- Full text and drawings from Technical Disclosure of inventions
- Defensive publications as an alternative to other types of intellectual property, such as patents or utility models; source is the monthly journal Research Disclosure
- Reasons for publication:
  - Low-cost alternative to prevent patenting by others
  - Complement to patents, as all patent offices use this source regularly
- Title, text, drawing(s), publication information (country code RD), application/priority information in PRAI field
- Names (assignee, inventor, or ‘anonymous’) in PA field
- Bibliographical details and full-text searchable, text and drawing(s) available for display as TIFF or PDF
- Up to early 2001 RD documents were entered in Derwent World Patents Index, including the IPC (to subclass, added by Derwent) and other Derwent indexing
- International Patent Classification IPC (frequently only subclass level), exists in approx. 40% of the documents, IPC thesaurus, range search possible
- European Patent Classification ECLA, standardized, approx. 30% of the documents contain the ECLA in addition to the IPC
- References to non-patent literature
Guide to STN Patent Databases

- Patent classification details and references are not added with the monthly updates but later with an extra update twice a year
- Drawing(s)
- RD documents are also entered into the World Patents Index and Chemical Abstracts databases

16.4 Dynamics

The RDISCLOSURE database follows the static principle. The documents from the Research Disclosure journal are entered and will not be updated.

16.5 Updating

Documents are entered in the database approx. 14 days after the publication date of the Research Disclosure journal. IPC and/or ECLA data and references are added twice a year.

16.6 Document from RDISCLOSURE

Display format: ALL (contains the ASCII text without drawings)

AN 487019 RDISCLOSURE
TI Injection process to reduce the static unbalance of a plastic injected fan for motor cooling system of a motor vehicle
PA Anonymous
PI RD 487019 20041110
PRAI RD 2004-487019 20041020
REN XP007134461
CODEN: RSDSBB; ISSN: 0374-4353
LA English
DT Patent
GI N 1
GIS 45378
IPCI F04D
IPCR F04D0029-66 [I,A]; F04D0029-66 [I,C*]
EPC F04D0029-66C2
TX 487019

Injection process to reduce the static unbalance of a plastic injected fan for motor cooling system of a motor vehicle

The aim of the disclosed invention is to reduce the static unbalance of an injected plastic fan for motor cooling system of a motor vehicle. The chosen process is the addition of injected flyweight coming from the same injection step than the fan injection step and the use of a mobile pad in the injection mold to modulate the weight of the injected flyweight. The first realization mode presented Fig 1 is to add injected flyweight (1) on the fan distal ring (2). The second realization mode presented Fig 2 is to add injected flyweight (1) on the fan blades (3). In this case the flyweight could have the shape of an air deflector improving the airflow capacity of the fan. The third realization mode presented Fig 3 is to add flyweight (1) on the fan hub (4). Alternatively to Fig 3, the flyweight (1) could be localized in the internal face of the hub (4). In such a case, the flyweight does not disturb the airflow.

Disclosed anonymously

Display format: ALLG (contains the text and the drawings as image)

AN 487019 RDISCLOSURE
TI Injection process to reduce the static unbalance of a plastic injected fan for motor cooling system of a motor vehicle
PA Anonymous
PI RD 487019 20041110
PRAI RD 2004-487019 20041020
REN XP007134461
CODEN: RSDSBB; ISSN: 0374-4353
LA English
Injection process to reduce the static unbalance of a plastic injected fan for motor cooling system of a motor vehicle

The aim of the disclosed invention is to reduce the static unbalance of an injected plastic fan for motor cooling system of a motor vehicle. The chosen process is the addition of injected flyweight coming from the same injection step than the fan injection step and the use of a mobile pad in the injection mold to modulate the weight of the injected flyweight. The first realization mode presented Fig 1 is to add injected flyweight (1) on the fan distal ring (2). The second realization mode presented Fig 2 is to add injected flyweight (1) on the fan blades (3). In this case the flyweight could have the shape of an air deflector improving the airflow capacity of the fan. The third realization mode presented Fig 3 is to add flyweight (1) on the fan hub (4). Alternatively to fig 3, the flyweight (1) could be localized in the internal face of the hub (4). In such a case, the flyweight does not disturb the airflow.
17 USPATFULL / USPAT2

17.1 Typical queries
- Searches to find out the state of the art (full text, international and US classification), e.g.:
  - What US patents exist on Brakes for inline skates?
  - Is there an American patent for a product known as NOLU?
- Searches using names (inventor, applicant), e.g.:
  - What US patent publications of INTEL CORP. have there been in the last 4 weeks?
- Searches using formal data (e.g. numbers), e.g.:
  - What does the US patent, number 5,752,072, say?
  - Have there been any changes from the published US patent application, number US 2001003823, to the granted US patent, number US 6,311,197?
- SDI for US publications
- Using the full-text to find material for an opposition
- Multi-File searches with other national and regional patent databases

17.2 Brief description
Producer: U.S. Patent and Trademark Office, USA
Period covered:
  - Since 1975, since 1971 for certain technical fields
  - USPAT2: since 2001
  - (Documents from the period 1790-1975 can be found in USPATOLD)
Size:
  - USPATFULL: more than 9.3 million patent publications (October 2018)
  - USPAT2: more than 3.2 million patent publications (October 2018)
Updated: Twice per week
Language: English

17.3 Contents
- Full texts of Applications (since 2001-03-15) and Granted Patents published by the US Patent and Trademark Office (USPTO) in the Official Gazette (including Utility patents, Defensive publications, Design patents, Reissue patents, Statutory invention registrations, Plant patents).
  - USPATFULL: first or earliest publication
  - USPAT2: latest or newest publication
In the FS (File Segment) field it is noted whether the full text is that of the Application or that of the Granted Patent.
- Bibliographical details (title, publication number and date, application number and date, assignee, Corporate Patent Applicant Name for Applications, inventor)
- Data on citations in REP
- Related patents, including Division, Continuation, Continuation in Part, etc. (application and publication details) in RLI
- Assignment/Reassignment information in RAI
17.4  Dynamics

The USPATFULL database follows a dynamic principle with two databases. All national publications are noted in the PI field. The classification information in the NCLM and NCLS fields is amended when the US Classification is revised.

A document is only entered in USPAT2 when there is a second publication. An existing document in USPAT2 is overwritten with every further (third, etc.) publication, thus only the latest document to have been published can be found in this database. There is no document in USPAT2 if there is only one national publication.

There is a cluster USPATALL comprising the USPATFULL and USPAT2 databases.

17.5  Updating

New US patents appear in the database on the day of publication.

17.6  Document from USPATFULL

Display format: MAX

USPATFULL on STN
AN  2016:272703  USPATFULL
TI  SYSTEM AND METHOD FOR FABRICATING AN ELECTRODE WITH SEPARATOR
IN  ESKRA, MICHAEL DAVID, SAUKVILLE, WI, UNITED STATES
     RALSTON, PAULA MARGARET, FREDERICK, MD, UNITED STATES
USPA  Eskra Technical Products, Inc., Saukville, WI, UNITED STATES
PI  US 20160240829       A1  20160818 <-
AI  US 2016-15062863 A1  20160307 (15)
RLI  Continuation-in-part of Ser. No. US 2012-13617162, filed on 14 Sep 2012, PENDING
PRAI  US 2012-61647773 20120516 (61) <-
DT  Utility
FS  APPLICATION

ASSIGNMENT HISTORY FOR US 20160240829
RAI  RAD:  20160307
     RAUP:  20160307
     RAK:  ASSIGNMENT OF ASSIGNS INTEREST (SEE DOCUMENT FOR DETAILS).
     PAO:  ESKRA, MICHAEL DAVID (DATE EXECUTED: 20160302)
     RALSTON, PAULA MARGARET (DATE EXECUTED: 20160302)
     RAC:  ESKRA TECHNICAL PRODUCTS, INC., 2595 HWY I, SAUKVILLE, WISCONSIN 53080, UNITED STATES
     RAA:  ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC, 136 SOUTH WISCONSIN STREET, PORT WASHINGTON, WI 53074
     MRN:  37912   MFN:  104 (5 Page(s))
A system and method for providing a ceramic-based separator onto an electrode is disclosed. A separator is formed on the electrode via a dry, solvent-free application of a ceramic-based separator to the electrode. An electrode is provided to an application area via a feed mechanism and a separator layer is then applied to the electrode that is...
What is claimed is:

1. A method of applying a dry, solvent-free ceramic-based separator to an electrode, the method comprising: providing an electrode to an application area via a feed mechanism; and applying a separator layer comprised of a binder and an electrically non-conductive separator material to the electrode via a dry dispersion application, wherein the binder includes at least one of a thermoplastic material and a thermoset material.

2. The method of claim 1 further comprising: heating the electrode; and gapped calendaring the separator layer to form a separator layer having a desired uniform thickness, density, porosity and tortuosity.

20. A battery cell comprising: an electrode; and a separator layer adhered to the electrode, the separator layer comprising: a binder comprising at least one of a thermoplastic material and a thermoset material; and an electrically non-conductive ceramic-based separator material; wherein the separator layer ranges from 2-30% binder by weight.

21. The battery cell of claim 20 wherein a thickness of the separator layer is less than 35 μm.
17.7 Document from USPAT2

Display format: MAX

USPAT2 on STN

AN  2009:181468 USPAT2
TI  Exhaust gas purifying catalyst
IN  Suzuki, Hiromasa, Toyota, JAPAN
PA  Toyota Jidosha Kabushiki Kaisha, Toyota-shi, Aichi-ken, JAPAN (non-U.S. corporation)
PI  US 7598205 B2  20091006
WO 2006087920  20060824
AI  US 2007-884682  20060127 (11)
WO 2006-JP1820  20060127
WO 20070820 PCT 371 date
PRAI JP 2005-42681  20050218
DT  Utility
FS  GRANTED

REP  US 4937058 Jun 1990 Dupin et al.
US 5120695 Jun 1992 Blumrich
US 6022826 Feb 2000 Deeba
US 6350421 Feb 2002 Strehlau
US 6616904 Sep 2003 Becue
EP 714692 Jun 1996
GB 1384248 Feb 1975
JP 61020342 May 1986
JP 022020561 May 1990
JP 05581521 Nov 1993
JP 08815554 Feb 1996
JP 09986928 Mar 1997


EXNAM Primary Examiner: Wood, Elizabeth D
LREP Finnegan, Henderson, Farabow, Garrett & Dunner, LLP

ASSIGNMENT HISTORY FOR US 7598205

RAI RAD: 20070820
RAUP: 20091006
RAK: ASSIGNMENT OF ASSIGNS INTEREST (SEE DOCUMENT FOR DETAILS).
PAO: SUZUKI, HIROMASA (DATE EXECUTED: 20070713)
RAC: TOYOTA JIDOSHA KABUSHIKI KAISHA, 1, TOYOTA-CHO, TOYOTA-SHI, AICHI-KEN, 471-8571, JAPAN
RAA: FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P., 901 NEW YORK AVENUE, NW, WASHINGTON, DC 20001-4413
MRN: 19763 MFN: 243 (2 Page(s))

RAI RAD: 20070820
RAUP: 20100304
RAK: ASSIGNMENT OF ASSIGNS INTEREST (SEE DOCUMENT FOR DETAILS).
PAO: SUZUKI, HIROMASA (DATE EXECUTED: 20070713)
RAC: TOYOTA JIDOSHA KABUSHIKI KAISHA, 1, TOYOTA-CHO, TOYOTA-SHI, AICHI-KEN, 471-8571, JAPAN
RAA: FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P., 901 NEW YORK AVENUE, NW, WASHINGTON, DC 20001-4413
MRN: 19763 MFN: 243 (2 Page(s))

CLMN Number of Claims: 4
ECL Exemplary Claim: 1
DRWN 4 Drawing Figure(s); 2 Drawing Page(s)
AB In a three-way catalyst for purifying exhaust gases from internal combustion engines, scattering of bismuth components can be suppressed by employing a Bi-Ti composite oxide at a predetermined ratio. Accordingly, the effect of suppressing hydrogen sulfide emissions can be retained for a long time. This catalyst comprises a support substrate, and a catalyst layer formed on the support substrate and including a noble metal, a porous oxide, and a Bi-Ti composite oxide, and satisfies 0.3 ≤ R ≤ 1.5, where R is the molar ratio of the Bi content to the Ti content per unit volume of the support substrate.
What is claimed is:

1. An exhaust gas purifying catalyst, comprising: a support substrate; and a catalyst layer formed on said support substrate and including a noble metal, a porous oxide, and a bismuth and titanium composite oxide, the ratio \( R \) of the molar amount of bismuth loaded per unit volume of said support substrate to the molar amount of titanium loaded per unit volume of said support substrate satisfying \( 0.3 \leq R \leq 1.5 \).

4. The exhaust gas purifying catalyst according to claim 1 or 2, wherein the molar amount of bismuth loaded per unit volume of said support substrate is not less than 0.2 mol/liter and not more than 0.4 mol/liter.
Types of search
18 Search by subject

Subject searches are carried out in the main to establish the state of the art for a particular specialist field, to find out about solutions to a technical problem, or to find patents comparable to a present invention (prior art). These searches can take place with the aid of text entries (text search) and of the International Patent Classification (IPC), the Common Patent Classification (CPC), or the Derwent Classification (in DWPI) – (classification search). In some databases it is possible to use special indexing entries for searching (search by indexing).

Usually it is not possible to obtain a 100% complete list of text keywords (to search by text) or a 100% complete list of classification codes, so a combined strategy is the best approach in many cases. Having a search problem comprising a number of aspects, both keywords and classification codes should be found for all aspects.

A search table is very helpful:

- The aspects of the search are entered in columns.
- The keywords, classification codes, index terms, etc. are entered in the rows.

The keywords, classification codes, index terms for each aspect are linked with OR, the answer sets for the aspects are linked with AND:

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The search table can be developed step-by-step during the search (see chapter 1: Steps to conduct a patent search). Moreover, intermediate results should be checked for more keywords and classification codes appearing in the documents that can be added to the search table.

18.1 Notes on subject searches in DWPI

In DWPI, in addition to the combined text and classification search a plain text search should always be made. By the enhanced title and abstract by Derwent this database is ideal for a good result of plain text searches. Adverse effects from an incorrect classification can be avoided this way.

It may also help to classify only to the level of the subclass and then combine these codes with a text search. The Derwent Classification (DC) may also be used.

If abbreviations are used there is often a problem of the same abbreviation being used for different terms in different fields, e.g.:

```
ABS  Acrylonitrile-Butadiene-Styrene  Anti-Blocking System
GPS  Glycoproteins                   Global Positioning System
PCB  Polychlorinated Biphenyl        Printed Circuit Board
```

Often it is enough to link the search query with the appropriate file segment or to exclude one file segment from the search:

```
=> S GPS NOT CPI / FS
```

File segments in DWPI:

- CPI  Chemical Patent Index
- EPI  Electrical Patent Index
- GMPI General and Mechanical Patent Index
### 19 Search by text

#### 19.1 Search fields

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Language: French, English. |
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Language: English. |
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Language: English. |
| INFULL                   | /BI, /TI, /AB, /DETD, /CLM, /MCLM | TI, AB, DETD, CLM, MCLM | BI, TI, AB, MCLM, CLM: Left truncation available  
Language: English. |
| INPADOCDB / INPAFAMDB     | /BI, /TI, /AB, /DETD, /CLM, /MCLM | TI, AB, ABDE, ABFR, ABES, ABOL | BI, TI, AB: Left truncation available  
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Language: English. |
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Language: English. |
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Trademarks: /BI, /TM, /ACT, /TMCC, /TMCT | Patents: TI, ACT, NCTL, NTE  
Trademarks: TM, ACT, TMCC, TMCT | BI: Left truncation available  
Language: English. |
| PATDD                    | /BI, /TI, /ST, /SW | TI, AB, ST | BI: Left truncation available  
Language: German. |
| PATDPA                   | /BI, /PST, /TI | TI, AB, MCLM, PST | BI: Left truncation available  
Language: German. |
| PATDPAFULL               | /BI, /CLM, /TI, /SBI (TI, /AB, /MCLM) | AB, CLM, DETD, TI | BI, TI, AB, MCLM, CLM: Left truncation available  
Language: German. |
Language: German, English. |
Languages: English, German, French, Spanish. |
| PCTGEN                   | /BI, /TI, /ORG, /MTY, /FEAT | TI, ORGN, MTY, FEAT | BI, FEAT: Left truncation available  
Language: English. |
| RDISCLOSURE              | /BI (including full text), /TI | TI (full text display in ALL or ALLG (TIFF) format) | BI: Left truncation available  
Languages: 95 % English, (5 % German, French, Spanish) |
| RUSSIAPAT                | /BI, /TI, /AB, /FLD | TI, AB, FLD | BI: Left truncation available  
Language: English. |
| USGENE                   | /BI, /TI, /AB, /ORG, /MTY, /ECLM, /FEAT | TI, ORGN, AB, ECLM, FEAT | BI, FEAT: Left truncation available  
Language: English. |
| USPATFULL/ USPAT2        | /BI, /TI, /AB, /CLM, /ECLM | AB, DETD, DRWD, SUMM, TI CLM, ECLM | BI, AB, TI, CLM, ECLM: Left truncation available  
Language: English. |
| USPATOLD                 | /BI, /TI, /AB, /CLM, /ECLM | AB, TI, TI.CA CLM, ECLM | BI, AB, TI, CLM, ECLM: Left truncation available  
Language: English. |
## 19.2 Contents of the Basic Index

<table>
<thead>
<tr>
<th>Database</th>
<th>Title(s)</th>
<th>Abstract(s)</th>
<th>Indexing terms</th>
<th>Claim(s)</th>
<th>Other</th>
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<td>RN</td>
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<td>AB (AB, ABDE, ABFR, ABES, ABOL)</td>
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<td>DETD</td>
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<td>AB</td>
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<td></td>
<td></td>
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<td>CLM, MCLM</td>
<td>DETD</td>
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<td>AB</td>
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<td>Patents: NCTL, Trademarks: TMCC, TMCT</td>
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<td>MCLM since 1996</td>
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<td>PATDPAASPC</td>
<td>TN</td>
<td></td>
<td>RN, RN.CEC, RN.OC, RN.PCC, CN, CN.CEC, CN.OC, CN.PCC, IT</td>
<td>LS, NTE, APP, GRA, REQ,</td>
<td></td>
</tr>
</tbody>
</table>
Text searching can be done in all databases in the Basic Index (/BI or without a SEARCH qualifier). The searched terms can be entered in a truncated form:

```
=> $ SENSOR?
L1 9491 SENSOR?
```

The following types of truncation can be used:

- `?` replaces any number of characters (or none) at the end of the search term or at the beginning in the case of left-hand truncation
- `#` replaces one character or none at the end of the search term
- `!` replaces exactly one character in the middle or at the end of the search term

In addition to the Boolean operators AND, OR and NOT, **Proximity operators** may be used. These types of proximity are available for text searching:

- `(W), (1W), (2W), …, (NOTW)` — terms are adjacent (with a spacing of 1, 2 … words, or not) in the specified order.
- `(A), (1A), (2A), …, (NOTA)` — terms are adjacent (with a spacing of 1, 2 … words or not), in any order.
- `(T), (1T), (2T), …, (NOTT)` — the terms are connected, the terms may be written in one word (T) or have a space (1T) or hyphen (1T) or even another term (2T) between them, e.g. `?micro? (2T) ?mechanical?` would find e.g. micromechanical, microelectromechanical, micro-mechanical, micro electromechanical, micro-electro-mechanical;
  `?anti? (1t)` `?allerg?` would find e.g. anti-allergic, antigen, allergen, quantifying allergens (sometimes this does not work at line breaks)
- `(S)` — terms are adjacent in the same sentence/subunit (e. g. pairs of descriptors) or in the same paragraph of text (DWPI, invention level).
- `(L) or (P)` — terms are in the same field, in any order.
  - `(L) in PATDPA, IFIALL, CA, ENCOMPPAT, RUSSiapAT, USPATFULL, USPAT2, USPATOLD etc.,
  - `(P) in INPADOCDB, INPAFAMDB, PATDD, EPFULL, PATDPAFULL, PCTFULL, FRFULL, FRANCEPAT
- `(P)` — DWPI, invention level: terms are adjacent in the same section of the abstract, in any order
- `(L)` — DWPI: terms are adjacent in one segment of the publication level, in any order; at invention level (L) proximity works as AND
Types of search

**(S)** or **(P)** in full text databases — terms are adjacent in the same paragraph of a field, in any order.
(S) in EPFULL, PATDPAFULL, PCTFULL, FRFULL,
(P) in USPATFULL, USPAT2, USPATOLD, IFIALL

**(L)** in segmented full text databases — terms are adjacent in the same document (segment) of the full text, in any order.
(AUPATFULL, CANPATFULL, CNFULL, DEFULL, EPFULL, FRFULL, GBFULL, INFULL, JPFULL, PATDPAFULL, PCTFULL)

In the text fields, (W) is implied proximity if no other (Boolean or proximity) operator is entered. Hyphenated terms are split at the hyphen and each part entered into the index separately. If a hyphen is entered as part of a search then it will automatically be replaced by (W). Special characters, such as =, /, -, are considered as blanks. To avoid confusion when searching for characters that are used in the STN command language (/, AND, OR) these must be entered in "..." or "'...".

```
=> F I L  P A T D P A F U L L
=> S  A - D - W A N D L E R
   1008914  A
   997724  D
   64998  W A N D L E R
L1  14732  A - D - W A N D L E R
   { A ( W ) D ( W ) W A N D L E R }

=> S  A / D - W A N D L E R
' D - W A N D L E R' IS NOT A V A L I D F I E L D C O D E
L2  0  A / D - W A N D L E R

=> S  ' A / D - W A N D L E R'
   1008914  ' A'
   997724  ' D'
   64998  ' W A N D L E R'
L3  14732  ' A / D - W A N D L E R'
   { ' A '( W ) ' D '( W ) ' W A N D L E R ' }

=> F I L  E P F U L L
=> S  S T O P  A N D  G O
   199412  S T O P
   86109  G O
L4  19895  S T O P  A N D  G O

=> S  ' S T O P  A N D  G O'
   199412  ' S T O P '
   2339900  ' A N D '
   86109  ' G O '
L5  716  ' S T O P  A N D  G O'
   { ' S T O P '( W ) ' A N D '( W ) ' G O ' }

=> S  S T E P  A N D  S C A N
M I S S I N G  T E R M  B E F O R E  ' A N D '

=> S  ' S T E P  A N D  S C A N'
   623871  ' S T E P '
   2339900  ' A N D '
   65798  ' S C A N '
L6  1174  ' S T E P  A N D  S C A N'
   { ' S T E P '( W ) ' A N D '( W ) ' S C A N ' }
```

During a text search it should be considered if ambiguous terms could lead to unwanted results (i.e. documents from a different field of technology). In these cases a combined search with classification codes is particularly advisable.

**Left truncation.** This is available in many databases in order to deal with compounds easily. Special care must be taken when using combined left and right truncation (Floating Stem, the term entered must be at least 4 letters long). A too short search term may result in a very long search time or even in the search being aborted. However, rather longer stems should be used, for the following reasons:

- The short stem may occur in different contexts:

```
=> S  ? H E M D ?
L10  3904  ? H E M D ?
```
Tasche eines Oberhemdes angesteckt werden kann. Selbstverständlich enthält das Abisolierwerkzeug 100 keine Kugelschreibermine. Es ist möglich, anstelle von Standardteilen eines Kugelschreibers auch spezifiziert hergestellte Teile einzusetzen.


- A too short search term may result in a very long search time

This problem occurs mostly in German databases because the German language uses compounds extremely often. In any case EXPAND and EXPAND LEFT should be used to check in advance if the intended search query will yield a reasonable result:

If necessary a longer stem (possibly more than one) should be found in order to do a search with left and right truncation in a reasonable time.

Stop words. Certain frequent words are excluded from indexing in the Basic Index. These words become unavailable for searching this way, even if used in a string search. If entered as part of a search they are normally ignored, but they are counted if proximity operators are used. It is a disadvantage, anyway, that this makes it impossible to search for certain combinations of terms including stop words.

When entered without proximity operators the words are linked by Implied Proximity. The system replaces spaces between the words by proximity operators and recognizes any stop words. If a stop word was used a ‘free space’ is considered:

If a proximity operator was entered the system will not recognize the stop words:

Thus, using proximity operators the extra space for the stop word must be considered:
Types of search

11425 UNWANTED
2185880 PRODUCT#  
L3 208 UNWANTED(1W)PRODUCT#  

=> D 7 12 KWIC=C=S

L3 ANSWER 7 OF 208 HCPLUS COPYRIGHT 2006 ACS on STN  
AB Endotoxin is an unwanted by product of recombinant proteins purified from...

L3 ANSWER 12 OF 208 HCPLUS COPYRIGHT 2006 ACS on STN  
AB ... 1,3-BDSA is more complicated with unwanted products such as SO2 and benzene...

In EPFULL (and other files) stop words do not exist:

=> FILE EPFULL

=> S UNWANTED BY PRODUCT#  
2458 UNWANTED  
834345 BY  
100593 PRODUCT#  
L12 9 UNWANTED BY PRODUCT#  
(UNWANTED(W)BY(W)PRODUCT#)

(Note on this example: The term ‘byproduct’ must of course also be searched as ‘byproduct’ in all the databases.)

In the table below it is shown how a list of stop words can be displayed in each of the databases.

<table>
<thead>
<tr>
<th>Database</th>
<th>Stop words</th>
<th>Online Help</th>
<th>Standard</th>
<th>Fields in /Bl</th>
</tr>
</thead>
<tbody>
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<td>CA</td>
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</tr>
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<td></td>
<td>CA</td>
<td>Ti, ST, IT, CT, CW, AB</td>
</tr>
<tr>
<td>CAPLUS</td>
<td>Yes</td>
<td>? content</td>
<td>CA</td>
<td>Ti, ST, IT, CT, CW, AB</td>
</tr>
<tr>
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<td></td>
<td>CA</td>
<td>Ti, ST, IT, CT, CW, AB</td>
</tr>
<tr>
<td>DEFULL</td>
<td>No</td>
<td></td>
<td>CA</td>
<td>Ti, ST, IT, CT, CW, AB</td>
</tr>
<tr>
<td>DGENE</td>
<td>Yes</td>
<td>non</td>
<td>DERWENT</td>
<td>Ti, KW, AB, DESC, ORGN</td>
</tr>
<tr>
<td>DPCI</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DWPI</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>Yes</td>
<td>? content</td>
<td>CA</td>
<td>Ti, AB, CT, ST, RN</td>
</tr>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Changed text substances (e.g. introduction of abstracts from a certain date) may have an influence on search results. For the time after the introduction of a new text substance the number of hits of a text search may be considerably higher. This should particularly be taken into account when performing statistical analyses as the search result is more
The text substances may be added to already existing documents. This must be considered when doing a current awareness search. There exist update fields to take this into account (cf. “Monitoring patents”).

**Abbreviations.** In some databases, such as World Patents Index and Chemical Abstracts, where the text substances (Title, Abstract, Index terms) are edited by the database producer, there are abbreviation lists for abbreviations often used in the documents. These abbreviations must be considered in a search, the result otherwise being incomplete. It is advisable to SET ABBREVIATIONS ON in order to search for abbreviations automatically. (The current abbreviation list can be displayed with HELP ABB in the databases.)

```plaintext
=> FILE WPINDEX
=> SET ABB ON
=> S HARD DISK DRIVE
  135496 HARD
  121185 DISK
  792044 DRIVE
  7385 HARD DISK DRIVE
  [HARD(W) DISK(W) DRIVE]
  2997 HDD
L11  8977 HARD DISK DRIVE
```

**Spelling.** With SET SPELLINGS ON the system will search both British and American spellings automatically:

```plaintext
=> FILE INPADOCDB
=> SET SPELLINGS ON PERM
=> S ?ALUMINUM?
  140565 ?ALUMI NUM?
  169182 ?ALUMI NI UM?
L2  290476 ?ALUMI NUM?
   [?ALUMI NUM? OR ?ALUMI NI UM?]
```

If SET SPELLING is not on, this feature can be activated by appending it to the search command:

```plaintext
=> SET SPELLINGS OFF
=> S GLASS FIBER? SPE=ON
  360911 GLASS
  369326 FIBER?
  256257 FIBRE?
  566579 FIBER?
  [FIBER? OR FIBRE?]
L1  37192 GLASS FIBER?
   [GLASS(W)FIBER?]
```

### 19.4 Using proximity operators with searches in text fields

Proximity operators offer the opportunity of searching with a higher precision, compared to the Boolean operators AND, OR, NOT, by searching for the terms entered only within a certain scope (e.g. in one field, in one sentence, or within a specified distance). The way proximity operators are used is different between the databases with a segmented structure and other databases, possibly with special features in any of the databases. Therefore help is available in all of the databases (HELP (S), HELP (P), HELP (L)).

In literature databases and in most patent databases with static or dynamic concept proximity operators are used like this:

<table>
<thead>
<tr>
<th>Patent databases with static or dynamic concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Unit = Record</td>
</tr>
<tr>
<td>Field</td>
</tr>
<tr>
<td>Paragraph</td>
</tr>
<tr>
<td>Sentence</td>
</tr>
<tr>
<td>Compound terms</td>
</tr>
</tbody>
</table>
Types of search

- Work Unit (Documentation unit) = Record
  - Field (L)
  - Sentence (S)
  - AND
  - OR
  - NOT

**Figure:** Proximity Operators in databases with static or dynamic concept

A sub-unit of a field is usually considered a ‘sentence’.

In databases with a segmented structure above all (L) proximity differs in its use:

**Tables:**

<table>
<thead>
<tr>
<th>Databases with file segmentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Unit</td>
</tr>
<tr>
<td>Record</td>
</tr>
<tr>
<td>Field</td>
</tr>
<tr>
<td>Paragraph</td>
</tr>
<tr>
<td>Sentence</td>
</tr>
<tr>
<td>Compound terms</td>
</tr>
</tbody>
</table>

**Figure:** Proximity operators in databases with segmented structure

This example shows the use of the (L) operator in INPADOCDB:

```
L1  ANSWER 1 OF 1       INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
AN 20203275 INPADOCDB UP 20061116 UW 200646
TI DREHPFLUG DER NONSTOP-BAUART.
TL German
IN NAUD, BERNHARD
NS NAUD BERNHARD, FR
PA CHARRUES NAUD
PAS NAUD EXPL CHARRUES, FR
DT Patent
PI DE 3522933           A1 19860109
PIT DEA1 DOC. LAID OPEN (FIRST PUBLICATION)
DAV 19860109  unexamined printed without grant
STA PRE-GRANT PUBLICATION
A1 DE 1985-3522933       A 19850627
AIT DEA Patent application
PRAI FR 1984-10577         A 19840629 (FRA)
PRAIT FRA Patent application
```
Guide to STN Patent Databases

REC 5. THERE ARE 5 CITED REFERENCES (5 PATENT, 0 NON PATENT) AVAILABLE FOR
THIS RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.

AN 20203275 INPADOCDB UP 20061117
TI Volldrehpflug.
TL German
IN NAUD, BERNHARD, BEAUPREAU, FR
INS NAUD BERNHARD, FR
PA CHARRES NAUD, BEAUPREAU, FR
PAS CHARRES NAUD BEAUPREAU, FR
DT Patent
PI DE 3522933 C2 19940303
PIT DEC2 PATENT SPECIFICATION (SECOND PUBL.)
FDT DE92 Grant of a patent after the examination procedure
DAV 19940303 printed-with-grant
STA GRANTED
AI DE 1985-3522933 A 19850627
AIT DEA Patent application
PRAI FR 1984-10577 A 19840629 (FRA)
PRAIT FRA Patent application

This search yields a result, even though ‘Volldrehpflug’ and ‘Nonstop’ do not appear in the same title but at different publication levels:

=> S (VOLLDREHPFLUG AND NONSTOP)/TI
   28 VOLLDREHPFLUG/TI
   112 NONSTOP/TI
L2 1 (VOLLDREHPFLUG AND NONSTOP)/TI

To search just within the same publication level, (L) must be used:

=> S (VOLLDREHPFLUG (L) NONSTOP)/TI
   28 VOLLDREHPFLUG/TI
   112 NONSTOP/TI
L3 0 (VOLLDREHPFLUG (L) NONSTOP)/TI

In DWPI the invention level has a dynamic concept, but the individual members at publication level are arranged as segments. Therefore (L) proximity cannot be used to restrict the search to one information unit. (L) proximity is used in conjunction with the document level indicator /DLVL search term to restrict searches to the invention or member patent level, e.g.

=> S (OIL (L) DEGREASING) /TIEN (L) PUBLICATION /DLVL
Both words must appear with one member.

L2 ANSWER 1 OF 11 WPINDEX COPYRIGHT 2007 THE THOMSON CORP ON STN

Member (0002)
TIEN DEGREASING AND ZINC PHOSPHATE CHEMICAL CONVERSION LIQUID FOR
STEEL MATERIAL WITH DEPOSITION OF OIL

Member (0003)
TIEN DEGREASING AND ZINC PHOSPHATE CHEMICAL CONVERSION LIQUID FOR
STEEL MATERIAL WITH DEPOSITION OF OIL

Search only at the invention level.

=> S ((PERMANENT MAGNET?) (P) (INDUCTION HEAT?))/AB (L) INVENTION /DLVL
Thus, there is no operator to restrict a search to a particular field:

<table>
<thead>
<tr>
<th>DWPI</th>
<th>Work Unit = Record</th>
<th>AND, OR, NOT</th>
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<tr>
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<td>-</td>
<td></td>
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<tr>
<td>Section of the abstract</td>
<td>(P)</td>
<td></td>
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<tr>
<td>Paragraph</td>
<td>(S)</td>
<td></td>
</tr>
<tr>
<td>Compound terms</td>
<td>(A) = (N), (W) = ()</td>
<td></td>
</tr>
</tbody>
</table>
Types of search

The (P) operator is used to link search terms within one section of the abstract:

```plaintext
=> S ((MAGNET?) (P) (INDUCTION?))/NOV
L7  2115 ((MAGNET?) (P) (INDUCTION?))/NOV

=> D L7 HIT
L7  ANSWER 1 OF 2115 WPI INDEX COPYRIGHT 2006 THE THOMSON CORP on STN
NOV NOVELTY - The motor has an induction rotor with a shaft
rotatably inserted into a center of a stator. A synchronous rotor (130) is
slid in a longitudinal direction of the shaft between the stator and the
induction rotor. Another synchronous rotor (140) is slid in the
direction of the shaft between the stator and the induction
rotor, where a magnetic flux of the synchronous rotors is varied
according to a variation of an applied voltage.
```

The (S) operator is used to link search terms within a single text paragraph:

```plaintext
=> S ((MAGNET?) (S) (INDUCTION?))/NOV
L8  2111 ((MAGNET?) (S) (INDUCTION?))/NOV

=> S L7 NOT L8
L9  4 L7 NOT L8

Here the search terms can be found in different paragraphs.
```

19.5 Notes on individual databases

In the Derwent World Patents Index, invention level, the titles and abstracts are newly formulated by the database producer (see the database description). Often more than one abstract is entered into the database for the same invention (from different publications in the patent family). The words from the title and abstract (incl. ABEQ, ABEX, ABDT and the sections of the abstracts) are indexed in the Basic Index (but ABEX and ABDT are displayable in the subscriber files only). They can be searched using left and right truncation. Additionally, the words of the title are available in the Basic Index in their grammatically basic forms as Title terms (also searchable in the /TT field). At the same time the proximity relations (i.e. the order of the individual words) are maintained. A thesaurus is available for the /TT field where the preferred form is shown:
Hyphenated terms are also entered into the /TT field; using EXPAND the various writings can be found:

For every section of the abstract, e.g. /NOV, /TECH, there are special search fields, e.g.:

To link search terms in one section of the abstracts (P) proximity is recommended. Left truncation is available.

In Derwent World Patents Index, publication level, there are fields for the original data:

Apart from the /TI and /AB fields there is a special Basic Index, /BIEX. As the text may be in German, French or Spanish these languages should be considered. In order to include all text fields into the search both index fields must be combined:

The original data are available only from some of the patent offices:

- Title:
  - German patent applications, patents and utility models (DE-A1, DE-B1/B2/B3/B4, DE-C1/C2 and DE-U1) from 1968
Types of search

- PCT applications (WO-A1/A2) from 1978
- Japanese applications (JP-A) (Machine Assisted Translations) from 1975
- Australian applications (AU-A) from 2004
- United Kingdom granted patents (GB-B) since 2004

- Abstracts:
  - PCT applications (WO-A1/A2) from 1978

- Claims:
  - German patent applications, patents and utility models (DE-A1, DE-B1/B2/B3/B4, DE-C1/C2 and DE-U1) from 1968
  - UK patents (GB-B, Derwent week 1984/09 to 1997/51 only)

In the Derwent Patents Citation Index only the title is available for text searching. It is recommended to do text and subject searches in the World Patents Index and switch to the DPCI file for the citation search only.

In INPADOCDB and INPAFAMDB the title (90% of all documents have titles, extensions to the title or original titles, TIO) and the abstract are available for searching. For most European languages it is entered in the original language, while for some non-European languages and Russian a translation into English is made. Abstracts are entered for publications from 42 countries since 1970, i.e. from US, GB (since 1897), WO, EP, CA, DE, FR, CN. However, abstracts are not generally entered, but the number of the existing abstracts is considerable (> 13 million). The language of the abstract is often English, but other languages occur. Therefore, a (multi-lingual) text or keyword search in INPADOCDB should be made to complement, but not to restrict, a classification search.

```
>> E A/FA
**** START OF FIELD ****
E3 0...> A/FA
E4 11807357 AB/FA
E5 512650 ABD/E/FA
E6 101312 ABES/FA
E7 1687006 ABFR/FA
E8 263400 ABOL/FA
E9 242928 ABOR/FA
E10 52054682 AI/FA
E11 52152990 AN/FA
E12 48296890 DAV/FA
```

The long-term coverage may be very helpful with some search problems.

In INPAFAMDB the search indexes always cover the patent family. If two or more search terms are linked by AND the hits may come from several publications of the patent family. If this is not wanted (L) proximity must be used (see above).

In the Chemical Abstracts database, the title and abstract are edited by the database producer. The words of the title, the abstract, and chemical indexing terms, including CAS Registry numbers, are searchable in the Basic Index. Searching is also possible with left-hand truncation. Single words from the abstract are additionally searchable in a specific /AB search field; the words of the Basic index excluding the abstract (i.e. only titles and index data) can also be searched in the /OBI search field.
In the **Multilingual databases** (DEFULL, EPFULL, PCTFULL, PCTGEN, RDISCLOSURE, INPADOCDB, INPAFAMDB) the key words, apart from English, should also be entered in other languages.

In the **full text databases** on the one hand the complete text of the publication, on the other hand the individual text components (Title, Abstract, Main Claim, All Claims) can be searched.

In the Basic Index single words from all text fields (Title, Abstract, All Claims and more text fields) are searchable. (Right and left hand truncation are available.) This usually yields a high number of results compared to text searches in other patent databases, yet the result often contains documents of little relevance. In order to limit the number of hits and at the same time improve the relevance of the documents retrieved:

- Proximity operators should be used and
- The FOCUS command should be used to sort the result.

It is advisable not to use AND but the (S) operator or the (P) operator (in USPATFULL/USPAT2, USPATOLD and IFIALL) to link two or more terms.

Because of the extensive text components, where specific expressions and quite likely even company names, trademark names, etc., can be found, full text databases are particularly useful to search for opposition material and for monitoring searches.

In **USPATFULL**, **USPAT2** and **USPATOLD** Full text Browsing is possible, i.e. a document can be browsed by screens and searches by additional aspects can be done.

In **EPFULL** German and French terms should be used in addition to English. To display fields in a particular language display formats are available that prefer a certain language, e.g. by DISPLAY CLMDE German claims are preferred.

In **AUPATFULL**, **CANPATFULL**, **DEFULL**, **FRFULL**, **GBFULL**, **INFULL**, **JPFULL**, and **PCTFULL** certain text components are generated by Optical Character Recognition (OCR) software, i.e., recognition errors may occur and text components may be incomplete. These databases are multilingual: PCTFULL – English, German, French, Spanish; FRFULL – French, English.

**PATDPAFULL** contains the full text of German patent applications (‘Offenlegungsschriften’), patents (‘Patentschriften’) and translations of European patent documents as well as German utility models (‘Gebrauchs muster’) (no description, only claims), published by the German Patent and Trademark Office. There are no documents from European or PCT applications with Germany as designated state in this database. It is therefore recommended to also consult the EFPULL and PCTFULL databases if a comprehensive search for documents relevant for Germany is wanted.

**IFIALL** should be seen as a full text database with respect to text searches, even if only the title, abstract and all claims are available.

In Derwent Geneseq **DGENE** and in **PCTGEN** every record only has the information on one single sequence claimed in a patent. Thus, the data of a single patent are spread over as many records as sequences are claimed in the patent.

The title of a record in DGENE is the same as that of the corresponding record in DWPI. The Abstract (AB), Keywords (KW), and Description (DESC) contain a description of the properties of the individual sequence indexed in the record. All text fields can be searched using the Basic Index or (excluding the abstract) the separate search fields /TI, /KW, /DESC.

**PCTGEN** contains the original titles of the patents. The Basic Index includes, apart from the Title (English, French, German), the Molecule Type /MTY and the Organism Name /ORGN; Abstracts are not available.

The Feature Table (FEAT) provides descriptions of the properties of partial sequences. It is searchable in the /FEAT search field where left hand truncation can be used. On sequence searching see “Search by subject index”.

**114**
### Types of search

#### 20 Search by patent classification

#### 20.1 Classification fields

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</table>

* Classification information is not available in these databases: DGENE and PCTGEN.
** IPC is a Super Search Field and comprises these search fields: ICA, ICI, ICM, ICS, IPCI, IPCR. It should be preferred in all databases.
*** IPCI and IPCR are only display fields in DWPI.
**** In DWPI re-classification of the back-file/reload may affect the ICM or ICS fields. These fields should therefore not be used any more, even for publications before 2006.

No IPC8 codes available: PATDD

Note: IPC codes are occasionally provided later for PCT (WO) applications. If this is the case a code at Subclass level is assigned in DWPI and CA.

20.2 Principles underlying a patent classification system

(Source: http://www.wipo.int/classifications/ipc/en/brochure/princip.htm)

‘In establishing a patent classification, two main approaches are traditionally distinguished.

‘Under one of the two approaches, inventions are classified according to the branches of industry, “art” or human activity to which they are characteristically relevant. This approach is usually termed “industry-oriented,” “art-oriented” or “application-oriented.” The former German Patent Classification, which had a certain influence on the IPC, employed this approach.

‘Under the other approach, inventions are classified according to the functions characterizing them. This approach is usually termed “function-oriented.” The United States of America and the United Kingdom patent classification systems are of this nature.

‘The two approaches can hardly be applied in their theoretical purity. Some functions are so characteristically, if not exclusively, relevant to certain branches of industry that it is natural to classify them under such branches. For example, spinning, weaving and knitting mainly concern textiles and it is only natural to regard them as mainly relevant to the textile industry. And indeed, they appear in the IPC under Section D (“Textiles; Paper”).

‘On the other hand, conveying, packing, storing, hoisting, lifting and hauling are functions which concern almost any branch of industry. Inventions relating to these functions lend themselves naturally to a “function-oriented” classification. And indeed, they appear in the IPC under Section B (“Performing Operations; Transporting”).

‘Although the IPC is in principle mainly function-oriented, it does, in fact, combine both approaches. It is the result of experience acquired by persons whose daily task consists in comparing inventions for which patent protection is claimed with similar inventions already disclosed in published patent documents. It is their judgment, based on such experience, which plays a decisive role in choosing, in each case, between the two approaches and in establishing the system.’
20.3 Searching by International Patent Classification (IPC)

In order to provide a tool for ordering world-wide patent publications into fields of technology and a tool for searching that is independent from languages the International Patent Classification (IPC) was published by WIPO in 1968 and revised every five years. It is used by all national and regional patent offices and WIPO.

From 1 January, 2006 the IPC was considerably extended and new regulations introduced (e.g. structure, classification rules, revisions, database updates). The 2012 version of the IPC has approximately 70,000 symbols to identify fields of technology, it is now being revised once every year, and the whole back-file gets re-classified in accordance with every new version. The IPC has eight sections:

<table>
<thead>
<tr>
<th>Section</th>
<th>Field of technology</th>
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<tr>
<td>A</td>
<td>Human Necessities</td>
</tr>
<tr>
<td>B</td>
<td>Performing Operations; Transporting</td>
</tr>
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<td>C</td>
<td>Chemistry; Metallurgy</td>
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<td>D</td>
<td>Textiles, Paper</td>
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<tr>
<td>E</td>
<td>Fixed Constructions</td>
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<tr>
<td>F</td>
<td>Mechanical Engineering; Lighting; Heating; Weapons; Blasting</td>
</tr>
<tr>
<td>G</td>
<td>Physics</td>
</tr>
<tr>
<td>H</td>
<td>Electricity</td>
</tr>
</tbody>
</table>

The sections are subdivided hierarchically: Class — Subclass — Group/Main Group — Subgroup. A symbol of the IPC is an alphanumerical code (i.e. consisting of letter and numbers). A patent on in-line skates (A63C 17/06) is codified like this:

- A63C 17/00 = Roller skates (Main Group)
  - A63C 17/04 = with wheels arranged otherwise than in two pairs (Subgroup, 1-point classification)
    - A63C 17/06 = single-track type (Subgroup, 2-point classification)

The IPC is provided with convenient search tools in various databases or by the patent offices through the Internet:

- http://www.wipo.int/classifications/ipc/ipc8/

The Internet version includes additional information: additional definitions, chemical structures, illustrations, references.

A revision of the IPC is announced by WIPO six months in advance.

From 2006, with IPC revision 8, the classification concept was changed:
Old concept: Patent publications are assigned a main IPC code which identifies the invention in its key aspect as described in the main claim. This main IPC code is printed in bold on the publication’s title page. Where appropriate, further secondary IPC codes are assigned which refer to further aspects of the invention. Therefore, in patent databases a distinction is made between the Main IPC (ICM field) and the Secondary IPC (ICS field). The combined ICM and ICS fields can be searched and displayed together in the IC field. Some patent offices assign Additional IPCs (ICA field) and Index IPCs (ICI field) which provide further information on the contents of the publication. On the printed publication these IPC codes are separated from the Main and Secondary IPC codes by a double forward slash, //.

Documents already available in the patent databases are usually not reclassified.

A printed IPC code is according to this pattern:

ANNAnnN/NNnnn
A: Letter
N: Number
n: Number, optional; if these positions are not required they are not printed (no leading/trailing zeroes)

<table>
<thead>
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</tbody>
</table>

New concept: IPC codes (one or more) are assigned that characterise the core of the invention (Invention IPC). For this, the full document is considered, not only the claims. In addition non-invention ('additional') IPC codes are assigned. The IPC codes are printed on the publication in accordance with WIPO ST.10/C like this:

- Italic: All (Advanced Level Codes / Full version 2006-2010)
- Non-italic = Core Level Codes / Basic version (2006-2010)
- Bold = Invention IPC
- Non-bold = non-invention IPC

Document (fictitious), with revision indicator:
A printed IPC code is according to this pattern:

\[ \text{ANNAnnnN/NNnnnn} \]

A: Letter  
N: Number  
n: Number, optional; if these positions are not required they are not printed (no leading/trailing zeroes)

<table>
<thead>
<tr>
<th>Section</th>
<th>Class</th>
<th>Subclass</th>
<th>Group</th>
<th>Subgroup</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>NN</td>
<td>A</td>
<td>nnnN</td>
<td>NNnnnn</td>
</tr>
<tr>
<td>A-H</td>
<td>01-99</td>
<td>A-Z</td>
<td>1-9999</td>
<td>00-99999</td>
</tr>
</tbody>
</table>

The revision indicator on the printed publication has this format:

\[(YYYY.MM)\]

YYYY: Year  
MM: Month

The data of the patent offices include other information that can be entered in the databases.

Existing documents in the databases are continuously revised to the current revision of the IPC.

### 20.3.1 Re-classification

#### 20.3.1.1 Reference database MCD

When the back-file is re-classified or during a later re-classification due to revisions of the IPC only one member of the patent family is re-classified. The new classification is then transferred to the other members of the patent family.

The basis of this procedure is the MCD classification (MCD = Master Classification Database, reference database).

The patent families are found by their priority data (simple family concept).

Every database producer decides how this re-classification is applied in the database.

**Note:** Re-classification in the MCD file may be incomplete and delayed. Thus, the respective old codes must be included in classification searches by IPC. For monitoring searches using the IPC, the old codes should be kept (at least for some time).

#### 20.3.1.2 STN's strategy: Back-file, patent publications before 2006

All old codes (IPC1-7) are retained in all the patent databases, so are the search and display fields (ICM, ICS, ICA, ICI, IC). These fields can still be used to search the back-file.

The re-classified data of the back-file are currently entered in these databases: AUPATFULL, CANPATFULL, CAPLUS, CNFULL, DWPI, FRFULL, GBFULL, INFULL, INPADOCDB, INPAFAMDB, JPFULL, PCTFULL, USPATFULL, USPAT2, USPATOLD.

#### 20.3.1.3 STN's strategy: New patent publications from 2006

The IPC8 is introduced in all of the patent databases. New search and display fields are introduced for the codes and the additional information.

If for a new patent publication both original IPC8 data (i.e. codes assigned by the patent office) and re-classified IPC8 data are available both the original data and current IPC8 codes will be entered in separate fields. The re-classified codes will be overwritten each time the classification is revised.

### 20.3.2 IPC Search Fields

Two IPC search fields were introduced:

- All types of IPC codes (editions 1 to 8) can be searched in the IPC field.
- The IPC.KW field contains standardised keywords specifying the origin of both old and new IPC codes.

Both search fields should be linked with (S) proximity:
A search just in the IPC fields yields the biggest answer set. To limit to a certain origin (see table below) the IPC.KW field is used with (S) proximity.

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<td>C</td>
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<td></td>
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** Rolled-Up Core codes from Derwent (98/IPC.KW) have HUMAN in this position if the data are original (other databases show MACHINE in this case)

*** WPINDEX only

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Types of search

Truncation by ! is only required at still higher levels, e.g. search for class A47: S A47!/IPC, for section A: S A!!!/IPC. The latter should usually be avoided: To narrow a search to a particular subject field other SEARCH fields are more appropriate in most cases (e.g. the File Segment /FS field in DWPI).

20.3.3 IPC Thesaurus

The International Patent Classification is available in many STN patent databases with full title in English as an on-line thesaurus (from the introduction of edition 8). Search is possible with catchwords (Relationship Operator +KT). The IPC field holds the classification codes and catchwords of the current edition of the IPC (edition 8). To access earlier editions the number of the desired edition must be appended to the field code, e.g. /IPC5. Catchwords are available from edition 5.

These Relationship Codes can be used for SEARCH and EXPAND:

- Full class title (+INDEX).
- Full class title and IPC edition (+ED)
- Full class title and broader terms (+TI)
- Narrower terms (+NT), Related terms (+RT), Broader terms (+BT) or Hierarchy (+HIE)
- Browse (+BRO) the full class; (+BRO5) – 5 Broader and 5 Narrower terms; browse forward and backward (+NEXT (n), +PREV (n))
- Keyword terms (+KT)
- All related terms (+ALL)
- All Advanced Level (+ADV)
- All corresponding Core Level (+COR)

Here are some applications:

- Hierarchical search of the IPC at all hierarchy levels
- Simple query of defined IPC ranges
- Correlation of Advanced Level and Core Level codes is displayed in the IPC8 thesaurus
- Identification of suitable IPC codes through a catchword search

The main on-line aids are: HELP THESAURUS (Thesaurus contents) and HELP RCODES (meaning and application of Relationship Codes).

20.3.3.1 Limiting to invention information

One important limiting option is to search by IPC for invention information. For old IPC codes (editions 1 to 7) the attributes ICM and ICS are available and for new IPC 8 codes INVENTION or I, all in the IPC.KW field:

```plaintext
=> FIL INPADOCDB
=> S G02C0005-08/IPC(S)(I OR ICM OR ICS)/IPC.KW
  467 G02C0005-08/IPC
  46889478 I/IPC.KW
  37020372 ICM/IPC.KW
  17720910 ICS/IPC.KW
L7  467 G02C0005-08/IPC(S)(I OR ICM OR ICS)/IPC.KW
```

The search query may be limited to the IPC8 attribute for the SDI search profile:

```plaintext
=> S G02C0005-08/IPC(S)(I)/IPC.KW
  467 G02C0005-08/IPC
  46889478 I/IPC.KW
L8  416 G02C0005-08/IPC(S)(I)/IPC.KW
```

20.3.3.2 Limiting to Main IPC codes

In the old IPC system all patent publications had one Main IPC code. In the new IPC system there is no Main IPC code any longer; however, the patent offices have the option to assign either a FIRST or a LATER attribute to each invention
IPC code. Use and actual meaning of FIRST depends on the individual patent office and is only roughly comparable to that of a Main IPC code.

```
=> S G02C0005-08/IPC (S)(F OR ICM)/IPC.KW
   467 G02C0005-08/IPC
   21294704 F/IPC.KW
   37020372 ICM/IPC.KW
L9   299 G02C0005-08/IPC (S)(F OR ICM)/IPC.KW
```

### 20.3.4 Search Strategy

In many cases it is useful to link the result of an IPC search with that of a search by free text. In order to obtain a comprehensive search result different variations of text and IPC queries and their linking should be employed and the partial results be combined by OR. This strategy is shown in the search examples on search by subject.

### 20.3.5 IPC display

The IPC display field shows all IPC details (old and new classification) of a document; the attributes are displayed in brackets. The IPC field combines the IPCI (original IPC8 data) and IPCR (latest re-classified IPC data) fields.

Use the command SET ICFORMAT ON to display even the old IPC in the new format:

```
=> SET ICFORMAT ON
SET COMMAND COMPLETED
```

Always use this command before performing any IPC-based analyses.

Here is a document from 2006 with its IPC data:

```
=> D PI IPC
L1   ANSWER 1 OF 1  INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN
PI    EP 1628341      A2 20060222
PI    EP 1628341      A3 20070919
IPCI   H01L0021-8247 [I,A]; H01L0027-22 [I,A]
```

Here is a document before 2006 with its IPC data:

```
=> D PI IPC
L2   ANSWER 1 OF 1  INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN
PI    IT 9020727      D0 19900622
PI    IT 9020727      A1 19911223
PI    IT 1248974      B 19950211
ICM    B42D
IPCI   G06K0019-08 [I,A]; B42D [I,S]
IPCR  D21H0021-48 [I,A]; G06K0019-12 [I,A]; G07D0007-04 [I,A];
      G07F0007-08 [I,A]
IPCR  D21H0021-48 [I,A]; G06K0019-12 [I,A]; G07D0007-04 [I,A];
      G07F0007-08 [I,A]
```

The introduction of re-classification data for the back-file, as e.g. in INPADOCDB, INPAFAMDB, offers considerable advantages for searching. The example above gives a good impression of how much different re-classification data and original IPC data may prove. In this case of a patent publication from Italy, which was originally issued with an IPC code at subclass level only, the IPC codes made available through re-classification are much more detailed. Re-classification thus offers a much better chance of finding more relevant documents. It also levels out different classification practices of the various patent offices.

Depending on the amount of information displayed the IPC display field may be free (e.g. in INPADOCDB, INPAFAMDB) or charged (HCAPLUS).

```
=> FIL HCAPLUS
```

### 20.3.6 IPC display

Using the command SET ICFORMAT OFF to display only the new IPC (without the old IPC)

```
=> SET ICFORMAT OFF
```

The introduction of re-classification data for the back-file, as e.g. in INPADOCDB, INPAFAMDB, offers considerable advantages for searching. The example above gives a good impression of how much different re-classification data and original IPC data may prove. In this case of a patent publication from Italy, which was originally issued with an IPC code at subclass level only, the IPC codes made available through re-classification are much more detailed. Re-classification thus offers a much better chance of finding more relevant documents. It also levels out different classification practices of the various patent offices.

Depending on the amount of information displayed the IPC display field may be free (e.g. in INPADOCDB, INPAFAMDB) or charged (HCAPLUS).

```
=> FIL HCAPLUS
```
The IPC.TAB format displays a table with detailed IPC data. Again, the charges depend on the database used:

=> D IPC.TAB

The IPCisations of the national offices are entered into the CPC field.

If a member of the patent family is available in an EPO official language (+ Dutch), then the CPC that has been assigned intellectually is also included in the WO documents.

The CPC codes are used in databases only. Only IPC codes are printed on publications. Definitions and concordances (ECLA-CPC, IPC-CPC) are published by the EPO on:

- CPC Scheme and Definitions: http://www.cooperativepatentclassification.org/deliverables/cpcSchemeAndDefinitions.html
- CPC Concordances: http://www.cooperativepatentclassification.org/deliverables/cpcConcordances.html

WO publications that are not available in one of the official languages of the EPO (German, English, French) have no longer been intellectually classified by the EPO since 1/2016 (e.g. JP, CN, KR, RU):

- The IPC classifications of the national offices are entered into the CPC field.
- If a member of the patent family is available in an EPO official language (+ Dutch), then the CPC that has been assigned intellectually is also included in the WO documents.

The USPTO had a transition period until December 2014. During this period, codes were assigned as follows:
• New US patent applications were assigned both USPC and CPC codes
• Granted US patents were assigned either USPC or both USPC and CPC codes
• CPC codes were printed on the publications in addition to IPC and USPC codes

Since 2015 the USPTO has used the CPC exclusively (Plant and Design Patents exempt).

The CPC is continuously revised by both offices, documents are re-classified according to the latest revisions in the databases.

### 20.4.2 The structure of the CPC

The CPC is a classification system based on the IPC having approximately 250,000 classification codes. It comprises the former EPC and ICO codes, additional codes for business methods (G06Q) and specific aspects of the USPC. The CPC has the sections A to H plus an extra section Y for new technologies and technologies overlapping multiple sections. The groups are finer than those of the IPC. Up to 6 digits for subgroups may follow the slash /.

<table>
<thead>
<tr>
<th>A</th>
<th>Section</th>
<th>HUMAN NECESSITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A63</td>
<td>Class</td>
<td>SPORTS; GAMES; AMUSEMENTS</td>
</tr>
<tr>
<td>A63C</td>
<td>Subclass</td>
<td>SKATES; SKIS; ROLLER SKATES; DESIGN OR LAYOUT OF COURTS, RINKS OR THE LIKE</td>
</tr>
<tr>
<td>A63C 17</td>
<td>Group</td>
<td>Roller skates; Skate-boards</td>
</tr>
<tr>
<td>...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A63C 17/04</td>
<td>Subgroup</td>
<td>... with wheels arranged otherwise than in two pairs (</td>
</tr>
<tr>
<td>A63C 17045</td>
<td>Subgroup</td>
<td>... Roller skis</td>
</tr>
<tr>
<td>A63C 17/06</td>
<td>Subgroup</td>
<td>... single-track type</td>
</tr>
<tr>
<td>A63C 17/061</td>
<td>Subgroup</td>
<td>... with relative movement of sub-parts on the chassis</td>
</tr>
<tr>
<td>A63C 17/062</td>
<td>Subgroup</td>
<td>.... with a pivotal frame or cradle around transversal axis for relative movements of the wheels</td>
</tr>
<tr>
<td>A63C 17/064</td>
<td>Subgroup</td>
<td>...... comprising steered wheels, i.e. wheels supported on a vertical axis</td>
</tr>
<tr>
<td>A63C 17/065</td>
<td>Subgroup</td>
<td>.... (with movements during use of the foot plate or shoe relative to the chassis, e.g. inline clap skate)</td>
</tr>
<tr>
<td>A63C 17/067</td>
<td>Subgroup</td>
<td>.... with adjustable position of the foot plate or shoe relative to the chassis</td>
</tr>
<tr>
<td>A63C 17/068</td>
<td>Subgroup</td>
<td>.... Production or mounting thereof</td>
</tr>
<tr>
<td>A63C 17/08</td>
<td>Subgroup</td>
<td>... (Single-wheel type with single axis )</td>
</tr>
</tbody>
</table>

Curly brackets [...] denote either a title of a CPC group that does not exist in the EPC or text specific to the CPC that was added to the original title of an EPC group.

Existing documents in the databases are continuously revised in accordance with the latest version of the CPC.

### 20.4.3 Using CPC codes for searching

The format of the CPC codes, the CPC fields, and the CPC thesaurus are basically the same as those of the IPC. The CPC field can be searched by full code, at man group or at subclass level:

```
=> $ A63C0017-061/CPC
=> $ A63C0017/CPC
=> $ A63C/CPC
```

Truncation should not be used. To search starting from a higher level of hierarchy always use the online thesaurus.

The CPC thesaurus (HELP THESAURUS) can be used to display the hierarchy of the CPC and to create a search using relationship codes:

```
=> E A63C0017/06 +NT/CPC
E1 3459 => A63C0017-06/CPC
E2  93  NT1 A63C0017-061/CPC
       with relative movement of sub-parts on the chassis (2013-01-01)
E3 466  NT2 A63C0017-062/CPC
       with a pivotal frame or cradle around transversal axis for relative movements of the wheels (2013-01-01)
E4 269  NT2 A63C0017-064/CPC
       comprising steered wheels, i.e. wheels supported on a vertical axis (2013-01-01)
E5 305  NT1 A63C0017-065/CPC
       CPC-specific text: with movements during use of the foot plate or shoe relative to the chassis, e.g. inline clap skate
```
Types of search

E6 136 NT1 A63C0017-067/CPC
with adjustable position of the foot plate or shoe relative to the chassis (2013-01-01)

E7 235 NT1 A63C0017-068/CPC
Production or mounting thereof (2013-01-01)

E8 414 NT1 A63C0017-08/CPC
CPC-specific text: Single-wheel type with single axis (2013-01-01)

********** END **********

=> S E1+NT
L1 3959 A63C0017-06+NT/CPC (8 TERMS)

It is also possible to use the E numbers for searching.

=> S E1-E8
L2 3959 (A63C0017-06/CPC OR A63C0017-061/CPC OR A63C0017-062/CPC OR A63C0017-064/CPC OR A63C0017-065/CPC OR A63C0017-067/CPC OR A63C0017-068/CPC OR A63C0017-08/CPC)

This table shows the CPC attributes and further search fields:

<table>
<thead>
<tr>
<th>CPC-Attribute</th>
<th>Search terms</th>
<th>Search fields</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>classification value</td>
<td>I, invention A, additional</td>
<td>/CPC.KW</td>
<td>I = Main aspects of the invention; A = Additional aspects of the invention</td>
</tr>
<tr>
<td>classification status</td>
<td>O, original, initial R, reclassified</td>
<td>/CPC.KW</td>
<td>New documents or documents from the backfile of INPADOC have the attribute “O” (original)</td>
</tr>
<tr>
<td>source of classification</td>
<td>H, human M, machine G, generated</td>
<td>/CPC.KW</td>
<td>New documents or documents from the backfile of INPADOC have the attribute “H” (human)</td>
</tr>
<tr>
<td>generating office</td>
<td>ES, FI, GB, SE</td>
<td>/CPC.KW</td>
<td>Available only for documents classified by ES, FI, GB, or SE; Not available for documents classified by EPO or USPTO</td>
</tr>
<tr>
<td>position attribute</td>
<td>F, first L, later</td>
<td>/CPC.KW</td>
<td>Denotes if the code is in first position or a later position (relevant for US documents)</td>
</tr>
<tr>
<td>version of the CPC</td>
<td>CCYYMMDD</td>
<td>/CPC.VER</td>
<td>Shows the CPC version (date is searchable)</td>
</tr>
<tr>
<td>action date</td>
<td>CCYYMMDD</td>
<td>/CPC.ACD</td>
<td>Shows the date when the code was assigned (date is searchable)</td>
</tr>
</tbody>
</table>

=> S A63C0017-064/CPC (S) I/CPC.KW
=> S A63C0017-064/CPC (S) 20130101/CPC.ACD
=> S A63C0017-064/CPC (S) 20130101/CPC.VER

20.44 Displaying CPC codes

In INPADOCDB/INPAFAMDB the CPC codes are displayed de-duplicated in the CPC display field:

=> D TI PI PA IND
L6 ANSWER 1 OF 268 INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN
P1 JP 06506374 A 19940721
P1 JP 3234223B B2 20011204
ICM A63C0017-04
ICS A63C0005-035; A63C0017-22
ICR A63C0005-035; | A; A43B0005-16; | A; A63C0017-00; | A; A63C0017-04; | A; A63C0017-06; | A; A63C0017-22; | A; A63C0017-00; | A; G11B0005-035; | A; G11B0005-09; | A; G11B0020-10; | A; A63C0017-06; | A43B0005-16; | A63C0017-06; | A63C0017-22; | A63C0017-00; | A; G11B0005-035; | A; G11B0005-09; | A; G11B0020-10009; | A; G11B0020-10046;
CPC A63C0017-06; A43B0005-16; A63C0017-06; A63C0017-22; G11B0005-035; G11B0005-09; G11B0020-10009; G11B0020-10046;
EPC A63C0017-06; A43B0005-16; A63C0017-06; A63C0017-22; G11B0005-035; G11B0005-09; G11B0020-10009; G11B0020-10046;
PNC A63C0017-06; A43B0005-16; A63C0017-06; A63C0017-22; G11B0005-035; G11B0005-09; G11B0020-10009; G11B0020-10046;
PSC A63C0017-06; A43B0005-16; A63C0017-06; A63C0017-22; G11B0005-035; G11B0005-09; G11B0020-10009; G11B0020-10046;

The full CPC information can be displayed with the CPC.TAB display format:

=> D CPC.TAB
L6 ANSWER 1 OF 268 INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN
CPC CODE VERSION POS INV CC ASSIGNMENT DATE STAT
-------------------------- -------------------------- -------------------------- -------------------------- --------------------------
A63C0017-06 (20130101) I Human 20130101 0
The codes are assigned intellectually and represent the characteristic features of the invention. (Only in the P section, General and Mechanical, the code is automatically assigned from the IPC. Since 2006, the codes have been assigned intellectually in the Q section, Mechanical / Transportation, too.) The fact that the codes are assigned by the database producer means that a better uniformity of allocation may be expected than with the IPC. The codes are assigned to the Basic. Usually a number of codes are used in order to appropriately reflect the features of the invention.

The DWPI Manual Codes are revised annually, this must be considered when using them. You can find user guides and a Manual Code lookup in the DWPI Reference Center:


There is also an on-line thesaurus that may be used to identify the codes or to search using the codes.

The DWPI Classification codes are entered in the DC (DWPI Class) field in all file segments (CPI, EPI, and GMPI) of the database. Additionally the codes are entered in the MC (Manual Codes) field of the EPI (Electrical indexing) and CPI (Chemical indexing) file segments. The DC field holds the code to the subclass level (3 characters) only while the MC field contains the Full Manual Code.

Using the Manual Codes in the EPI and CPI (subscribers only) segments it is often possible to classify a subject much more exactly than with the International Patent Classification.

Both fields are part of the IND and MAX formats. To SEARCH use the /MC field in the EPI segment in WPINDEX. The Chemical Indexing in the CPI file segment can only be used in the WPIDS and WPIX subscriber files.

In the /DC field either the section letter alone or the three-character class can be searched, if applicable use # or ! to truncate.

These options are available when searching in /MC:

- SEARCH a known code (e.g. X13-B02A/MC).
- SEARCH a code and all its sub-codes using truncation (e.g. X13-B/MC).
- SEARCH at class level, this covering all sub-codes without truncation (e.g. X13/MC).
- Using the on-line thesaurus.

As with IPC searching it is advisable not to use the codes on their own, but to combine them with other search terms.
21 Search by numeric properties

21.1 Numeric properties in patents

Numeric indications of physical or chemical properties play an important role in patents, for example:

- Amount or weight
- Concentration
- Ratio of mixture
- Frequency
- Wave length
- Temperature

Typically applicants avoid stating exact values in order to extend the scope of protection and to keep business secrets. In patent applications they rather state wide ranges around the actually relevant or commercially interesting values – a practice that makes searching numeric properties in ordinary text documents even more difficult.

21.2 Problem

Intervals of numeric properties are difficult to find using conventional tools for fulltext searching:

- Manually entering all possible values is cumbersome and error-prone, in particular if a larger interval is wanted
- A search by a sequence of numbers often exceeds the system limits
- The search is substantially incomplete

Consequently, numeric indications:

- Must be semantically treated
- Must be linked to their respective units
- Units must be convertible

21.3 Numeric Property Search (NPS)

Numeric Property Search (NPS) makes it possible to search numeric indications in patent publications in the context of the respective fulltext. Due to the numeric properties being indexed in the context of the document proximity operators known from text searches can be employed to link numeric values and keywords. This search option has already been implemented in the full-text databases AUPATFULL, CANPATFULL, CNFULL, DEFULL, INFULL, JPFULL, PCTFULL, and DWPI and in the non-patent literature databases 1Mobility, 2Mobility, AEROSPACE, AGRICOLA, CABA, COMPENDEX, ENCOMPPAT/ENCOMPPAT2, FSTA, METADEX, PQSCITECH, and TULSA/TULSA2 (version 1). There is a cluster NPS comprising all databases that have Numeric Property Search.

Upon introduction of NPS into Derwent World Patent Index the search options have been extended both with regard to the number of properties covered and possible synonyms (version 2). This version is also available in the FSTA (Food Science and Technology) database.

Numeric properties are extracted from the fulltext and processed by STN for improved searching:

- More than 55 (version 1: 35) chemical and physical properties in approximately 1,800 (version 1: 400) units
- Units are converted automatically
- Numerics are recognized (version 2)
- All English text fields are included (TIEN, ABEN, CLMEN, DETDEN)
- Numeric indications are kept in the context of the fulltext (Proximity)
21.3.1 Semantic enrichment

For semantic enrichment this basic algorithm is performed:

- Correct identification of numbers and units:

  ... The resulting CeO2 particle size measured by x-ray diffraction were in the range of 10 to 30 nm. Fig. 1 shows typical nano particles in a sample milled for 6 hours. In a second experiment a 1 litre attrition mill was used for milling the mixture. ... In addition it is widely accepted that the existence of a so-called ‘limiting particle size’ limits the practical minimum particle size that can be attained by grinding to values greater than 100 nm, irrespective of the type of ball mill employed. ...

  There are both exact numeric values and closed and open intervals. The units are sometimes written out, sometimes abbreviated, and they are appended to the respective number with or without a space. The empirical formula and the reference to “Fig. 1” also contain numbers, but they are no numeric properties.

- Extraction of values and their respective units:
  - 10 nm
  - 30 nm
  - 6 hours
  - 1 liter
  - 100 nm

- Conversion to basic SI units:
  - 10 nm = 1.0 x 10^-8 m
  - 30 nm = 3.0 x 10^-8 m
  - 6 hours = 2.16 x 10^4 s
  - 1 litre = 1.0 x 10^-3 m^3
  - 100 nm = 1.0 x 10^-7 m

The data found can be searched in the context of the original document:

- As exact values or in intervals
- In combination with keywords
- Using proximity operators
- In various units

The algorithm is able to identify and process SI units\(^1\), metric and non-metric units and various writings. For example feet and other units of the imperial system are identified and converted to their metric equivalents.

\(^1\) Strictly speaking, only metre, kilogram, second, kelvin, mole and candela are SI basic units. Others, such as cubic metre, mole per litre, joule or Newton are derived units; they are derived from the basic units. Others again, such as bit and byte or percent are not part of the Système International at all.
### 21.3.2 Searchable physical quantities

The table below lists the searchable physical quantities together with the respective units and search fields:

<table>
<thead>
<tr>
<th>Search Field</th>
<th>Quantity</th>
<th>Unit</th>
<th>Symbol</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>/AOS</td>
<td>Amount of Substance</td>
<td>Mole</td>
<td>mol</td>
<td></td>
</tr>
<tr>
<td>/BIR</td>
<td>Bit Rate</td>
<td>Bit / Second</td>
<td>bit/s</td>
<td></td>
</tr>
<tr>
<td>/BIT</td>
<td>Stored Information</td>
<td>bit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>/CAP</td>
<td>Capacitance</td>
<td>Farad</td>
<td>F</td>
<td>Version 2</td>
</tr>
<tr>
<td>/CDN</td>
<td>Current density</td>
<td>Ampere / Square meter</td>
<td>A/m²</td>
<td>Version 2</td>
</tr>
<tr>
<td>/CMOL</td>
<td>Molar Concentration (Molarity)</td>
<td>mole / litre</td>
<td>mol/l</td>
<td></td>
</tr>
<tr>
<td>/CON</td>
<td>Conductance (Electrical Conductance)</td>
<td>Siemens</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>/DB</td>
<td>Dezibel</td>
<td>Dezibel</td>
<td>dB</td>
<td>Version 2</td>
</tr>
<tr>
<td>/DEG</td>
<td>Degree</td>
<td></td>
<td>degree</td>
<td></td>
</tr>
<tr>
<td>/DEN</td>
<td>Density, Mass Concentration</td>
<td>Kilogram / Cubic Metre</td>
<td>kg/m³</td>
<td></td>
</tr>
<tr>
<td>/DEQ</td>
<td>Dose Equivalent</td>
<td>Sievert</td>
<td>Sv</td>
<td>Version 2</td>
</tr>
<tr>
<td>/DOS</td>
<td>Dosage</td>
<td>Milligram / Kilogram</td>
<td>mg/kg</td>
<td>Version 2</td>
</tr>
<tr>
<td>/DV</td>
<td>Viscosity, Dynamic</td>
<td>Pascal x Second</td>
<td>Pa/s</td>
<td></td>
</tr>
<tr>
<td>/ECH</td>
<td>Electric Charge</td>
<td>Coulomb</td>
<td>C</td>
<td>Version 2</td>
</tr>
<tr>
<td>/ECO</td>
<td>Electric Charge Density</td>
<td>Coulomb / Square meter</td>
<td>C/m²</td>
<td>Version 2</td>
</tr>
<tr>
<td>/ECO</td>
<td>Electrical Conductivity</td>
<td>Siemens / Meter</td>
<td>S/m</td>
<td>Version 2</td>
</tr>
<tr>
<td>/ELC</td>
<td>Electric Current</td>
<td>Ampere</td>
<td>A</td>
<td>Version 2</td>
</tr>
<tr>
<td>/ELF</td>
<td>Electric Field</td>
<td>Volt / Meter</td>
<td>V/m</td>
<td>Version 2</td>
</tr>
<tr>
<td>/ENE</td>
<td>Energy</td>
<td>Joule</td>
<td>J</td>
<td></td>
</tr>
<tr>
<td>/ERE</td>
<td>Electrical Resistivity</td>
<td>Ohm x Meter</td>
<td>ohm m</td>
<td>Version 2</td>
</tr>
<tr>
<td>/FOR</td>
<td>Force</td>
<td>Newton</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>/FRE</td>
<td>Frequency</td>
<td>Hertz</td>
<td>Hz</td>
<td></td>
</tr>
<tr>
<td>/IU</td>
<td>International Unit</td>
<td>none</td>
<td>IU</td>
<td>Version 2</td>
</tr>
<tr>
<td>/KV</td>
<td>Viscosity, Kinematic</td>
<td>Square Metre / Second</td>
<td>m²/s</td>
<td>Version 2</td>
</tr>
<tr>
<td>/LEN (/SIZ)</td>
<td>Length</td>
<td>Meter</td>
<td>m</td>
<td></td>
</tr>
<tr>
<td>/LUME</td>
<td>Luminous Emittance/Illuminance</td>
<td>Lux</td>
<td>lx</td>
<td></td>
</tr>
<tr>
<td>/LUMF</td>
<td>Luminous Flux (Luminous Power)</td>
<td>Lumen</td>
<td>lm</td>
<td></td>
</tr>
<tr>
<td>/LUMI</td>
<td>Luminous intensity</td>
<td>Candela</td>
<td>cd</td>
<td></td>
</tr>
<tr>
<td>/M</td>
<td>Mass</td>
<td>Kilogram</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td>/MHC</td>
<td>Mass to Charge Ratio</td>
<td>none</td>
<td>m/z</td>
<td></td>
</tr>
<tr>
<td>/MFD (/MFS)</td>
<td>Magnetic Flux Density</td>
<td>Tesla</td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>/MFR (/MFL)</td>
<td>Mass Flow Rate</td>
<td>Kilogram / Second</td>
<td>kg/s</td>
<td></td>
</tr>
<tr>
<td>/MW (/MM)</td>
<td>Molecular Weight, (Molar Mass)</td>
<td>Gram / Mole</td>
<td>g/mol</td>
<td></td>
</tr>
<tr>
<td>/MOLs</td>
<td>Molarity of Substance</td>
<td>Mol / Kilogram</td>
<td>mol/kg</td>
<td>Version 2</td>
</tr>
<tr>
<td>/MVR</td>
<td>Melt Volumen Rate</td>
<td>none</td>
<td>g/10 min</td>
<td>Version 2</td>
</tr>
<tr>
<td>/NUC</td>
<td>Nutrition Content</td>
<td>none</td>
<td>g/100 kcal</td>
<td>Version 2</td>
</tr>
<tr>
<td>/PER</td>
<td>Percent (Proportionality)</td>
<td>none</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>/PERA</td>
<td>Permittivity, Absolute</td>
<td>Farad / Meter</td>
<td>F/m</td>
<td>Version 2</td>
</tr>
<tr>
<td>/PHV</td>
<td>pH Value</td>
<td>pH</td>
<td>ph</td>
<td></td>
</tr>
<tr>
<td>/POW</td>
<td>Power</td>
<td>Watt</td>
<td>W</td>
<td></td>
</tr>
<tr>
<td>/PRES, /P</td>
<td>Pressure</td>
<td>Pascal</td>
<td>Pa</td>
<td></td>
</tr>
<tr>
<td>/RAD</td>
<td>Radioactivity</td>
<td>Becquerel</td>
<td>bq</td>
<td></td>
</tr>
<tr>
<td>/RES</td>
<td>Electrical Resistance</td>
<td>Ohm</td>
<td>Ohm</td>
<td></td>
</tr>
<tr>
<td>/RSP</td>
<td>Rotational Speed</td>
<td>Revolution / Minute</td>
<td>rpm</td>
<td></td>
</tr>
<tr>
<td>/SAR</td>
<td>Area</td>
<td>Square Meter</td>
<td>m²</td>
<td></td>
</tr>
<tr>
<td>/SOL</td>
<td>Solubility</td>
<td>Gram / 100 Gram</td>
<td>g/100g</td>
<td>Version 2</td>
</tr>
<tr>
<td>/STSC</td>
<td>Surface Tension, Spring Constant</td>
<td>Joule / Square Metre</td>
<td>J/m²</td>
<td></td>
</tr>
<tr>
<td>/TCO</td>
<td>Thermal Conductivity</td>
<td>Watt / Meter Kelvin</td>
<td>W/m K</td>
<td>Version 2</td>
</tr>
<tr>
<td>/TEMP</td>
<td>Temperature</td>
<td>Kelvin</td>
<td>K</td>
<td></td>
</tr>
<tr>
<td>/TIM</td>
<td>Time</td>
<td>Second</td>
<td>s</td>
<td></td>
</tr>
<tr>
<td>/VEL</td>
<td>Velocity</td>
<td>Metre / Second</td>
<td>m/s</td>
<td></td>
</tr>
<tr>
<td>/VELA</td>
<td>Velocity, angular</td>
<td>Radian / Second</td>
<td>rad/s</td>
<td>Version 2</td>
</tr>
<tr>
<td>/VLR</td>
<td>Volumetric Flow Rate</td>
<td>Cubic Meter / Second</td>
<td>m³/s</td>
<td>Version 2</td>
</tr>
<tr>
<td>/VOL</td>
<td>Volume</td>
<td>Cubic Metre</td>
<td>m³</td>
<td></td>
</tr>
<tr>
<td>/VOLT</td>
<td>Voltage</td>
<td>Volt</td>
<td>V</td>
<td></td>
</tr>
</tbody>
</table>

Detailed information on the searchable quantities can be displayed by entering `EXPAND/PHP` or `HELP NPS`.
21.3.3 Systems of units available

The CGS system of units (Centimetre—Gram—Second) is a metric coherent system of units that is based on the units centimetre, gram, and second. However, there are a number of concurrent extensions for electromagnetic units. STN Messenger accepts these systems:

<table>
<thead>
<tr>
<th>System</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGS</td>
<td>The centimeter-gram-second system</td>
</tr>
<tr>
<td>ENG</td>
<td>Customary U.S. Engineering units</td>
</tr>
<tr>
<td>FPS</td>
<td>The foot-pound-second system</td>
</tr>
<tr>
<td>MKS</td>
<td>The meter-kilogram-second system</td>
</tr>
<tr>
<td>SI</td>
<td>Systém Internatational d´unites (International system) based on the MKS system</td>
</tr>
<tr>
<td>STN</td>
<td>Customary units based on the SI-system</td>
</tr>
</tbody>
</table>

If a search is performed in one system of units documents using a different unit for a particular property will be found anyway, e.g.:

```plaintext
=> FIL WPINDEX => S 100000-200000/PRES L1 74521 100000 PASCAL - 200000 PASCAL /PRES
=> S 1-2 BAR/PRES L3 74521 1-2 BAR/PRES
```

The SET command can be used to define a preferred unit, e.g. to set Fahrenheit as the preferred unit for the temperature use:

```plaintext
=> SET UNIT TEMP=F PERMANENT
```

It is recommended to use the CGS system:

```plaintext
=> SET UNITS ALL=CGS
```

21.3.4 Searching

The data received can be searched in the context of the original text, i.e. they can be linked to a keyword search using proximity operators in order to obtain a more relevant search result. Exact numbers as well as closed or open intervals can be searched. By using SET TOLERANCE an absolute or relative tolerance range can be defined for each quantity, this can even be made permanent with the PERMANENT option:

```plaintext
=> SET TOLERANCE
ENTER FIELD CODES AND TOLERANCES OR (END): TEMP=10%
ENTER FIELD CODES AND TOLERANCES OR (END): END
```

The example below shows a search for a length in the nanometer range:

```plaintext
=> FIL PCTFULL
```

Linking the numeric property to keywords improves the relevance of the search result.

```plaintext
=> S SIZE (3A) SIZ<=100NM 756526 SIZE 112228 SIZ<=100NM
=> D KWIC 1-5
L1 ANSWER 1 OF 17287 PCTFULL COPYRIGHT 2011 LNU on STN
DETDEN ... particles with an average particle size of from approximately 3 to 100 nanometers, and a...
DETDEN ... 30 to 300 or even 100 nanometer size range results in a significant ...
DETDEN ... SiC powder with an average size of 90 nanometers was added and the...
DETDEN ... TiO2 powder having a particle size of about 50 nanometers is added to
```
Types of search

The examples below shows various options for entering “nanometers”.

Using exponential representation.

$=> S\ SIZE\ (3A)\ SIZE<=1.0\cdot10^{-7}$

$756526\ SIZE$

$L2\ 17287\ SIZE\ (3A)\ SIZE<=1.0\cdot10^{-7} M$

$=> S\ SIZE\ (3A)\ SIZE<=0.0000001$

$756526\ SIZE$

$L3\ 17287\ SIZE\ (3A)\ SIZE<=0.0000001\ M$

The basic unit for the length is “metre”.

The table below shows the search options:

<table>
<thead>
<tr>
<th>Search option</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard units</td>
<td>$=&gt; S\ 50/VOL$</td>
</tr>
<tr>
<td>L1</td>
<td>454 50 M**3 /VOL</td>
</tr>
<tr>
<td>Intervals</td>
<td>$=&gt; S\ 50-60/VOL$</td>
</tr>
<tr>
<td>L2</td>
<td>599 50 M<strong>3 - 60 M</strong>3 /VOL</td>
</tr>
<tr>
<td>Other units</td>
<td>$=&gt; S\ 10-30\ ML/VOL$</td>
</tr>
<tr>
<td>L3</td>
<td>114646 10-30 ML/VOL</td>
</tr>
<tr>
<td>Open intervals</td>
<td>$=&gt; S\ SIZE &lt; 5\ MM$</td>
</tr>
<tr>
<td>L3</td>
<td>SIZ &lt; 5 MM</td>
</tr>
<tr>
<td>Absolute tolerance</td>
<td>$=&gt; S\ 5\ MM +– 1/SIZ$</td>
</tr>
<tr>
<td>L4</td>
<td>463893 SIZ &lt; 5 MM</td>
</tr>
<tr>
<td>Relative tolerance in %</td>
<td>$=&gt; S\ 5\ MM +– 5/% SIZ$</td>
</tr>
<tr>
<td>L6</td>
<td>113784 5 MM +– 5%/SIZ</td>
</tr>
</tbody>
</table>

The availability of searchable properties can be checked in the /PHP field:

$=> S\ MW/PHP\ (5A)\ (?BLOCK\ ?POLYM?\ OR\ (?BLOCK?\ (T)\ ?POLYM?))$

$L7\ 163\ MW/PHP\ (5A)\ (?BLOCK\ ?POLYM?\ OR\ (?BLOCK\ (T)\ ?POLYM?))$

$=> D\ KWIC\ 1-5$

DETDEN ...

After quenching, the resultant iPF-blocl-PeP diblock copolymer had an Mn = 122 kg/mol and Mj Mn = 1.20...

DETDEN ...

molecular weight of the Polyoxalkylen Blockcopolymers 200000 g/mol, prefers 100000 g/mol and particularly prefers 50000...

$=> S\ SIZE/PHP\ (5)\ (?LIPOSOM?\ OR\ (?LIPOD?\ (W)\ VESICL?))$

$L8\ 9531\ SIZE/PHP\ (5)\ (?LIPOSOM?\ OR\ (?LIPOD?\ (W)\ VESICL?))$

$=> D\ KWIC$

DETDEN ...

by entrapping the drug in liposomen or microemulsions which are compatible... size in the range of 0.01 to 10 micrometers.

21.3.5 The EX operator

(NPS Version 2)

When searching an open range (e.g. S LEN>3) or an exact value (e.g. S 4/LEN) it may be that hits like this are found:

more than 1 meter "because the whole range is indexed in this case. To prevent this the EX operator can be used: S LEN.EX>3. This excludes documents where the value is lower than 3 meters, such as this:

Member ...

relates to thread|yarn entanglement prevention of a fishing rod. The
effect of the invention of Example 1Since it is at least 5 cm or more
separated from the front-end|tip part of a pole of the fishing line and
the fishing rod by... rod of normal. The effect of the invention of
Example 2Since the fishing line and the fishing rod are at least 5 cm
or more separated with the pipe in which the front-end|tip part of the pole was bent although the fishing ... it can use as a fishing rod of normal. The effect of the invention of Example 3. Since it is at least 5 cm or more separated from the front-end|tip part of a pole of the fishing line and the fishing rod by ...
# Types of search

## 22 Search by name

### 22.1 Important fields for a name search

<table>
<thead>
<tr>
<th>Databases</th>
<th>SEARCH</th>
<th>DISPLAY</th>
<th>Notes</th>
<th>Index form (see below)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUPATFULL, CANPATFULL, CNFULL, DEFULL, DWPI, EPFULL, FRANCEPAT, FRFULL, GBFULL, INFULL, INPADOCDB, INPAFAMDB, JPFULL, KOREAPAT, LITALERT, PATDPA, PATDPFULL, PCTFULL, RUSSIAPAT, USGENE, USPATOLD</td>
<td>/IN</td>
<td>IN</td>
<td>Inventor (Author)</td>
<td>Mixed index</td>
</tr>
<tr>
<td></td>
<td>/AU</td>
<td>AU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INPADOCDB, INPAFAMDB</td>
<td>/INS</td>
<td>INS</td>
<td>Inventor in INPADOC standard</td>
<td>Mixed Index</td>
</tr>
<tr>
<td></td>
<td>/PAS</td>
<td>PAS</td>
<td>Assignee in INPADOC standard</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td>USPATOLD</td>
<td>/IN</td>
<td>IN</td>
<td>Inventor</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td></td>
<td>/AU</td>
<td>AU</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>/PA</td>
<td>PA</td>
<td>Assignee (Corporate Source)</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td></td>
<td>/CS</td>
<td>CS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PATDD</td>
<td>/IN, (/IN.W)</td>
<td>IN</td>
<td>Inventor (Author)</td>
<td>Word index</td>
</tr>
<tr>
<td></td>
<td>(/AU, (/AU.W))</td>
<td>AU</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>/PA, (/PA.W)</td>
<td>PA</td>
<td>Assignee (Corporate Source)</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td></td>
<td>(/CS, (/CS.W))</td>
<td>CS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>/IN.S</td>
<td>IN</td>
<td>Inventor (Author)</td>
<td>Phrase index</td>
</tr>
<tr>
<td></td>
<td>/PA.S</td>
<td>PA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CA, DPCI, DGENE, ENCOMPPAT2, IFIALL*, JAPIIO, USPATFULL, USPAT2</td>
<td>/IN</td>
<td>IN</td>
<td>Inventor (Author)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>/AU</td>
<td>AU</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>/PA</td>
<td>PA</td>
<td>Assignee (Corporate Source)</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td></td>
<td>/CS</td>
<td>CS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USPATFULL, USPAT2</td>
<td>USPA</td>
<td>USPA, PA</td>
<td>Corporate Patent Applicant Name</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td>IFIALL</td>
<td>PPA</td>
<td>PPA, PA</td>
<td>Patent Assignee probable</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td>PCTGEN, RDISCLOSURE</td>
<td>/PA, /CS</td>
<td>PA, CS</td>
<td>Assignee</td>
<td>Mixed index with system interpretation; no inventors</td>
</tr>
<tr>
<td>PATDD</td>
<td>/PAS, /PAS.W</td>
<td>PAS</td>
<td>Assignee</td>
<td>Word index</td>
</tr>
<tr>
<td></td>
<td>/PAS.S</td>
<td></td>
<td>Phrase index</td>
<td></td>
</tr>
<tr>
<td>DWPI, WPIFV, DPCI, DGENE</td>
<td>/PACO</td>
<td>in PA</td>
<td>Assignee Code</td>
<td></td>
</tr>
<tr>
<td>CANPATFULL, DWPI, PATDPA, EPFULL, PATDPFULL, USPATFULL, USPAT2</td>
<td>/AG</td>
<td>AG</td>
<td>Agent</td>
<td>Mixed index with system interpretation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IFIALL, FRANCEPAT</td>
<td>/AG</td>
<td>AG</td>
<td>Agent</td>
<td>Word index</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RUSSIAPAT</td>
<td>/AG</td>
<td>AG</td>
<td>Agent</td>
<td>Mixed index</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>/CA</td>
<td>CA</td>
<td>Corporate Address (Agent)</td>
<td>Mixed index</td>
</tr>
<tr>
<td>PATDPA, EPFULL</td>
<td>/OP</td>
<td>OP</td>
<td>Opponent**</td>
<td>Mixed index</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LITALERT</td>
<td>/OW</td>
<td>OW</td>
<td>Owner</td>
<td>Mixed index with system interpretation</td>
</tr>
</tbody>
</table>

(In the individual patent databases, a great variety of further name fields are available. To list them all would exceed the limits of this publication. It is recommended to keep informed by means of the documentation of the individual databases.)

* – In IFIALL there is another field for applications, /PPA (Probable Patent Assignee).

** – In INPADOCDB and INPAFAMDB an opponent can be searched in the /LSOP field. If the applicant name changes, e.g. due to a company merger, this can often be seen from the Legal Status in the LSPA field, however, the name may remain unchanged in the PA field.)
**22.2 Index types in name fields**

**Word Index:** This index form considers solely the single words of a name. Normally the (S) proximity operator is predefined. If the search statement is S Procter & Gamble/PA, then Procter and Gamble may appear in any order of succession in the relevant name field of the same record.

**Phrase Index:** In this case names are only available as bound phrases. If you enter S Fischer Artur/IN, the system will search accordingly (watch out for punctuation!). Consequently, the searcher should closely follow the rules of the database searched.

**Mixed Index:** In a mixed index the names are listed both broken up in single words and in full (as a phrase). When entering S Fischer/IN, the word Fischer is searched, entering S Fischer Artur/IN will result in a search for that very phrase.

**Mixed Index where the System interprets the Query:** As in the mixed index above, single words and phrases are listed together. Here, however, the query S Procter & Gamble/PA results in a search by single words using implied (S) proximity. Entering S "Procter & Gamble"/PA (using quotation marks) will lead to a search with bound phrases. New or redesigned databases will in most cases be set up with this type of index for the Patent Assignee (/PA) field.

For an overview on the index types used in the various patent databases see the table above.

**22.3 Notes for all databases**

For name searches the use of the EXPAND command is highly recommended as it offers a number of advantages:

- You will see which kind of index is available in the database used.
- The various spellings of the name are shown.

Searches for inventors can be continued based on the results obtained by EXPAND. However, a search for assignees in most cases requires a more in-depth search strategy as company names may vary considerably (e.g. the sequence of the parts of the name).

If a name contains ‘Umlauts’, one should search both with the dissolved umlaut (ae for ä) and with the basic vowel instead of the umlaut (a for ä).

Some databases have entries with special characters (e.g. –, &) in the non-standardised Assignee Name field. To find such name entries with an EXPAND command the special characters must be entered.

In a crossover search, it is recommended to search only for the main parts of the name. If a multipart name is searched, use of (S)-Proximity is appropriate. In some of the databases other proximity operators, such as (W), are not permitted.

**22.4 Notes on individual countries**

**22.4.1 US**

The USPTO has been publishing the Corporate Patent Assignee Name for patent applications since 2015. This is entered into these fields:

- PA – Patent Assignee
- PAS – Patent Assignee Standard (INPADOC)
- USPA – Patent Assignee US (USPATFULL, USPAT2)
- PPA – Probable Patent Assignee (IFIALL)

It is advisable to use the /PASS super-search field. This automatically uses all patent assignee name search fields available in the database:

```plaintext
=> FIL USPATFULL
=> S INTEL CORPORATION/ PASS
  2692 INTEL CORPORATION/USPA
  12278 INTEL CORPORATION/PA
L10 14075 INTEL CORPORATION/PASS
   (INTEL CORPORATION/USPA, PA)
```
Still there are cases where there is no patent assignee name available for a patent application. In particular before 2015 only the inventor field is filled in patent applications in many cases. Only once a patent is granted the patent assignee is registered. This may be a problem with name searches. There are a number of opportunities to find the company affiliation of an inventor:

- In some databases (DWPI, USPATFULL, IFIALL) the AG field contains the representative (agent), from which a likely patent owner can often be concluded.

If the invention is not only filed in US the owner can be retrieved in an international database through the family members:

- In PCT applications the applicants are distinguished between applicants for US and for other countries:

A change of ownership is registered in INPADOCDB into the legal status (see section INPADOCDB/INPAFAMDB), in CAPlus and USPATALL this change is registered in the RAI field (Reassignment Information). By including these fields into a name search, the name search can be more complete:

```plaintext
=> FIL USPATFULL
=> S INTEL/PA, RAA
10955 INTEL/PA
3013 INTEL/RAA
L17 13905 INTEL/PA, RAA

=> D PA HIT 5
```
22.4.2 Germany

In German patent applications the inventor does not have to be named:

In such a case the inventor can be found through an equivalent (international or European) application:

Only the applicant is named in utility models.

22.4.3 Japan

An inconvenience of Japanese patent publications is that the names of inventors and assignees need to be converted from Japanese characters (as shown on the document) to Roman characters (the way they appear in the database).

- Japanese proper names are written in Chinese characters (Kanji). Kanji may have various readings and hence completely different pronunciations. A conversion into Roman characters yields, therefore, not always clear results.
- Foreign proper names are converted according to their pronunciation into Japanese syllable writing (Katakana). For integration in the database they are re-converted following specific rules. In particular accumulations of consonants frequently found in European names cannot be converted adequately into Katakana. As a result, foreign names are in most cases not recognizable after two consecutive conversions.

This concerns especially person names. Therefore they are not entered sometimes (DWPI to 6/2005, they are entered after that date). For companies there are usually adequate conversions into Roman characters or it is known which foreign company 'hides' behind a specific syllable sequence.
Types of search

22.4.4 Russia

With Russian names similar problems arise due to conversion. Non-Russian names are often changed very much. This applies both to names of companies and person names. In addition to that person names are often entered very differently: family name + initial(s), family name + full first name(s), changing sequence of the name parts. This can make name searches difficult in RUSSIAIPAT. In INPADOCDB and INPAFAMDB the standardised /PAS field can help. In DWPI and CAPLUS the names are usually edited to a better standard. This partly applies even to national Russian applications having no corresponding foreign applications.

22.5 Derwent databases: DWPI, DPCI, DGENE

22.5.1 Inventor

The Inventor (/IN) field in DWPI has a mixed index where the family names plus (possibly several) initials are entered. Individual words (name or initial alone) or the name together with initial(s) are searchable. Thus, it is possible to search by family name alone or by family name together with the initial(s); it may be necessary to use truncation:

=> S BRANDENBURG/IN
L1 324 BRANDENBURG/IN

=> S BRANDENBURG K/IN
L2 71 BRANDENBURG K/IN

=> S BRANDENBURG K7/IN
L3 76 BRANDENBURG K7/IN

The parts of a name can be linked with (S) proximity:

=> S (BRANDENBURG (S) K)/IN
324 BRANDENBURG/IN
2632995 K/IN
L10 81 (BRANDENBURG (S) K)/IN

The names are normalized in the index, i.e. special characters have been removed.

The name of the Inventor indicated on the first page of the Basic Patent is available in the Inventor field (since 1978). In older documents surnames with more than 10 letters were abbreviated (e.g. Tautzenberger – Tautzenber); more
recent documents (from 1985) additionally contain the full name. Both forms should be searched. From 1980, up to 8 Inventor names have been entered, before that time 3 at the most. Similarly, only 3 names are entered for Soviet (SU) patents. Japanese inventors (from A and B publications) are entered from Derwent Week 200537. Inventors from small countries are sometimes missing.

In older documents (up to 1985) names with umlauts are entered only with the corresponding basic vowel (e.g. Müller – Muller); more recent documents additionally contain the name with converted umlaut (Mueller). Both forms should, as a rule, be searched. Multi-part sumames can be searched in various ways, e.g.: von Danwitz is searchable as VONDANWITZ or as VON DANWITZ.

In DPCI and DGENE there is only a phrase index for the inventor names (/IN field), i.e. the family name must be used together with the initial(s) or with truncation, if necessary.

22.5.2 Patent assignee

A mixed index with system interpretation is used for Patent Assignees; individual words from the name therefore appear in one line along with the name ranked as a phrase. Usually a search by single words is assumed. (S) proximity is used automatically:

```plaintext
=> S PROCTER & GAMBLE/PA
   11204 PROCTER/PA
   11273 GAMBLE/PA
L2   11170 PROCTER & GAMBLE/PA
     (((PROCTER(S)GAMBLE)/PA)
```

If the name is to be searched as a phrase it must be entered with quotation marks:

```plaintext
=> S "PROCTER & GAMBLE CO"/PA
L3   11059 "PROCTER & GAMBLE CO"/PA
```

or

```plaintext
=> S "PROCTER & GAMBLE"?/PA
L4   11169 "PROCTER & GAMBLE"?/PA
```

The truncation character ? must immediately precede the slash and not be included in the quotation marks.

If several entries are contained in the name field every name will be treated as one sentence ((S) proximity). Names in a record are always in alphabetical order (may be different from the Patent Gazette).

The complete name (up to 40 letters) is entered for each Patent Assignee. Until Derwent week 9216, a maximum of 24 letters were used.

Since Derwent week 9216, all Patent Assignees (including those of the Equivalents) are added to the PA field. Prior to this, the number of the patent assignees was limited to 4. Differing patent assignees of the Equivalents have been added since 1976 (Derwent-Week 7648). The names of Patent Assignees (/PA) are searchable since 1970 (year of introduction into the database).

In addition to the name of the Patent Assignee, a code is entered into the database by the database producer (into the PACO field). (For the years 1963 to 1969, only this code is available.) The code consists of four (three up to 1970) letters and, where appropriate, a further symbol of identification:-

- –C – for unambiguous codes of major companies (more than 500 documents in the database),
- –I – for individuals acting as assignees,
- –N – for companies which are not part of this group of major companies,
- –R – for institutions of the former Soviet Union and Russia.

The codes are particularly useful as a search tool in the case of the mentioned major companies where they are unambiguous. The patent assignee code can be searched in the /PA field together with the assignee name or individually in the /PACO field. If an Equivalent carries a different name (e.g. because of a change of the company name), the new name is entered in PA and a new code in PACO, where appropriate.

If two companies (having standard codes) merge the patents continue to be entered under both standard codes as long as the companies apply for patents as independent companies. When they change to their new name the database producer does not automatically assign a new standard code but the most suitable code is chosen (either a new code or one of the old codes). The codes in existing documents are not automatically reassigned retrospectively.

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Types of search

A list of codes (both standard and non-standard) and respective assignee names is available on-line in the DWPI database or in the DWPI Reference Center (free of charge):


### 22.6 INPADOCDB, INPAFAMDB

For name searches the names of the Inventor (/IN, /INS) and Patent Assignee (/PA, /PAS) are available. The standard name fields /INS (inventor) and /PAS (assignee) should be used in addition: First standardisation assists the formulation of the search query, second sometimes the IN and PA fields do not contain data. To obtain a complete result EXPAND should be used to find the main parts of the name and then a search using (S) proximity be performed:

```
=> E KNOLL FRITZ/IN,INS 9
E1 2 KNOLL FRIEDRICH DIPL ING/INS
E2 1 KNOLL FRIEDRICH ERNST/INS
E3 34 => KNOLL FRITZ/IN
E4 38 KNOLL FRITZ/INS
E5 2 KNOLL FRITZ 7750 KONSTANZ DE/IN
E6 1 KNOLL FRITZ DE/IN
E7 1 KNOLL FRITZ DIPL BIOL/IN
E8 1 KNOLL FRITZ DIPL BIOL/INS
E9 1 KNOLL G/IN

=> S (KNOLL(S)FRITZ)/IN,INS
L1 48 (KNOLL(S)FRITZ)/IN,INS

=> D 1 2 IN INS
```

Names with Umlauts should be searched both with a converted umlaut (Müller – Mueller) and the corresponding basic vowel (Muller). For example for the name Gebrüder Bühler these variations were found:

- Gebrüder Buehler
- Gebruder Buhler
- Gebryder Byler

In the case of the German double-s ligature & conversion into ss or sz must be considered. It is advisable to truncate this as sl.

A (probably multiple) transliteration (Latin to Cyrillic, Japanese or Hebrew and return) can change the spelling of a name beyond recognition.

In INPADOCDB and INPAFAMDB an opponent can be searched in the /LSOP field. If the applicant name changes, e.g. due to a company merger, this can often be seen from the Legal Status in the LSPA field, however, the name may remain unchanged in the PA field.

```
L44 ANSWER 1 OF 3244 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PAS KOTANI NAOKI; SEBE AKIO; OKAZAKI GEN; TAMAKI TOKUHIKO
LEGAL STATUS HIT
AN 53430616 INPADOCDB 20060322 USAS
ASSIGNMENT
BAYER HEALTHCARE AG, GERMANY
ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: GOLZ, STEFAN; BRUGGEMEIER, ULF; SUMMER, HOLGER;
REEL/FRAME:017693/0459; SIGNING DATES FROM 20050804 TO 20050824
CHG Change of Owner, Inventor, Applicant
```

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Guide to STN Patent Databases

In order to allow efficient searching of these entries in the legal status fields together with those in the name fields the Super Search Fields /PASS (IPA, /PAS, /LSPA) and /INSS (IN, /INS, /LSIN) were introduced. (S) is Implied Proximity in the /PA, /PAS, /LSPA, and /PASS search fields.

=> S BOSCH SIEMENS/ PASS
17514 BOSCH/ PA
172535 BOSCH/ PAS
17920 BOSCH/ LSPA
183268 BOSCH/ PASS
   (BOSCH/ PA, PAS, LSPA)
408486 SIEMENS/ PA
402110 SIEMENS/ PAS
39891 SIEMENS/ LSPA
424940 SIEMENS/ PASS
   (SIEMENS/ PA, PAS, LSPA)

L1 19651 BOSCH SIEMENS/ PASS
   ( (BOSCH (SIEMENS)/ PASS)

US applications often do not mention the name of the patent assignee (but rather the names of the inventors in the PA field). With other publications in the patent family mentioning the company name a name search will often yield a better result in INPAFAMDB due to the family structure of this database (see "Family Search"):

AN 55870221 I N P A D O C D B ED 20080228 EW 200809 UP 20080307 UW 200810
IN EVANS JONATHAN A.; SCHLICHER SCOTT C.; LAMBI MARIOS
PAS EVANS JONATHAN A; SCHLICHER SCOTT C; LAMBI MARIOS
PI US 2008038569 A1 20080214 English

AN 36499334 I N P A F A M D B EDF 20080228 UPFB 20080313
- SCHLICHER SCOTT, US
PAS EVANS JONATHAN A; SCHLICHER SCOTT C; LAMBI MARIOS
- BASF AG, DE; EVANS JONATHAN A, US; SCHLICHER SCOTT, US

PATENT FAMILY INFORMATION INPAFAMDB

+---------- PUBLICATIONS ---------- + +---------- APPLICATIONS ---------- +
US 20080038569 A1 20080214 US 2007-837282 A 20070810

+---------- PRIORITIES ---------- +
US 2006-822319P P 20060814
US 2007-837282 A 20070810

22.7 PATDPAFULL

In PATDPFULL, German postcodes can be searched in the PA and IN fields:

=> S 98693/IN
L11 1081 98693/IN

=> D 4 IN

L11 ANSWER 4 OF 1081 PATDPFULL COPYRIGHT 2012 DPMA on STN
IN Sommer, Ralf, Prof. Dr., 98693, Ilmenau, DE;
Schaefer, Eric, 99089, Erfurt, DE;
Krause, Dominik, 98693, Ilmenau, DE;
Henning, Eckhard, Dr., 99096, Erfurt, DE

=> S 70!!!/PA
L13 89771 70!!!/PA

=> D PA

L13 ANSWER 1 OF 89771 PATDPFULL COPYRIGHT 2012 DPMA on STN
PA Daimler AG, 70327, Stuttgart, DE
22.8  EPFULL

There are special SEARCH fields for the address details of the inventor, of the patent assignee, of the agent, of the opponent and the agent of the opponent:

- /INA, /PAA, /AGA, /OPA, /OPAGA: Address
- /IN.CNY, /PA.CNY, /AG.CNY, /OP.CNY: Address, Country
- /IN.CTY, /PA.CTY, /AG.CTY, /OP.CTY: Address, City
- /IN.STR, /PA.STR, /AG.STR, /OP.STR: Address, Street
- /PAN, /AGN, /OPN, /OPAGN: Number
- /IN.COM: Comment on the Inventors
- /PA.DS: Designated States

22.9  Chemical Abstracts, IFIALL, USPATFULL, USPAT2, JAPIO, ENCOMPPAT

22.9.1  Inventor

The /IN (or /AU) field is phrase indexed. Therefore, it can only be searched by phrase. There is no implied proximity:

=> S ANDERA JOSEPH F /I/N
L45 4 ANDERA JOSEPH F /I/N

22.9.2  Patent assignee

The /PA (or /CS) field can be searched by name, country, and the assignee number either as a phrase or single words (mixed index with interpretation of the query). (S) is implied proximity. If the name is to be searched as a phrase it must be included in quotation marks, "..." (cf. DWPI).

22.9.3  CA, CAPLUS

In Chemical Abstracts there is a thesaurus on the /CO field with the most frequent name entries for large companies, which can be used like this:

EXPAND is used for the company name Bayer.

=> SET EXPAND CONT
=> E BAYER/CO
E= FREQUENCY AT TERM
.. .......... .. ....
E1    1  BAYEN JEAN/CO
E2    1  BAYENS HAROLD J/CO
E3 93    2 ... > BAYER/CO
E4 21715 4  BAYER A G/CO
E5    1  BAYER A G DORMAGEN/CO
E6    1  BAYER A G KREFELD UERDINGEN/CO
E7    3  BAYER A G LEVERKUSEN/CO
E8    1  BAYER A G ZENTRALE FORSCHUNG UND ENTWICKLUNG ABT PARTI
      KELTECHNIK/CO
E9    1    2  BAYER ABS LTD/CO
E10 1743 236  BAYER AG/CO
E11    9  BAYER AG 5090 LEVERKUSEN/CO
E12    93  BAYER AG 5090 LEVERKUSEN DE/CO

The thesaurus for the name entry yields information on the development of the company and the various names.

=> E E10+ALL
E13    0  CNUM CAS1000238/CO
E14 1743 236  BAYER AG/CO

NOTES 1863: Friedrich Bayer et. Comp. founded
1925: Farbenfabriken vorm. Friedr. Bayer & Co. merged into I.G. Farbenindustrie AG
1951: I.G. Farbenindustrie AG dissolved and
Guide to STN Patent Databases

Farbenfabriken Bayer AG reestablished
1954: Mobay Chemical Co. formed
1967: Bayer AG acquired Mobay Chemical Co.
1974: Bayer AG acquired Cutter Laboratories
1977: Chemische Industrie AKU-Goodrich B. V. renamed Ciago BV
1978: Bayer AG acquired Miles Laboratories
1979: Boots Hercules Agrochemicals Co. established
1984: Nor-Am Chemical Co. acquired Boots Hercules Agrochemicals Co.
1989: Miles, Inc. acquired Technicon Instruments Corp.
1994: Metrika, Inc. founded
1994: Miles-Sankyo Co., Ltd. renamed Bayer-Sankyo Co. Ltd.
1995: Miles Inc. renamed Bayer Corp.
1999: Bayer-Sankyo Co. Ltd. and Chiron KK merged to form Bayer Medical Ltd.
2002: Bayer AG acquired Aventis CropScience
2004: Bayer AG acquired Roche Consumer Health AG
2005: Bayer CropScience AG acquired full ownership of Genoptera LLC
2006: Bayer HealthCare LLC acquired Metrika, Inc.

E15 2 RT1 AGREVO/CO
E16 2 RT1 AGREVO CANADA INC/CO
E17 8 RT1 AGREVO ENVIRONMENTAL HEALTH/CO
E18 3 RT1 AGREVO GMBH/CO
E19 1 RT1 AGREVO JAPAN CO LTD/CO
E20 43 RT1 AGREVO UK LTD/CO
E21 55 RT2 AGREVO UK LIMITED/CO
E22 7 RT1 AGREVO USA CO/CO
E23 18 RT1 AMES CO/CO
E24 18 RT1 AMES RES LAB/CO
E25 3 RT1 AVENTIS AGRICULTURE LTD/CO
E26 34 RT1 AVENTIS CROPSCIENCE/CO
E27 2 RT1 AVENTIS CROPSCIENCE CANADA/CO
E28 3 RT1 AVENTIS CROPSCIENCE FRANCE/CO
E29 97 RT1 AVENTIS CROPSCIENCE GMBH/CO
... E242 7 RT1 TECHNICON INT DIV S A/CO
E243 7 RT1 TECHNICON INTERNATIONAL LTD/CO
E244 13 RT1 THE FARBENFABRIKEN OF ELBERFELD CO/CO
E245 77 RT1 THE FARBENFABRIKEN OF ELBERFELD COMPANY/CO
E246 14 RT1 UNION CARBIDE AGRIC PROD CO/CO
E247 24 RT1 UNION CARBIDE AGRIC PROD CO INC/CO
E248 10 RT1 UNION CARBIDE AGRICULTURAL PRODUCTS CO INC/CO

The following Relationship Codes may be used with the EXPAND and SEARCH commands in the Company Name (/CO) field:

<table>
<thead>
<tr>
<th>Relationship Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL</td>
<td>All Associated Terms (CNUM, NAME, SELF, RT, JV, NOTE)</td>
</tr>
<tr>
<td>CNUM</td>
<td>CAS Assigned Number (CNUM, SELF, NOTE, NAME, RT, JV)</td>
</tr>
<tr>
<td>JV</td>
<td>Joint Venture</td>
</tr>
</tbody>
</table>

Only one search term is charged for this thesaurus search in the /CO field in CAPLUS.
HELP RCODES displays the definition of the Relationship Codes.

=> HELP RCODES

=> S E14+ALL
L1 57690 "BAYER AG"+ALL/CO (236 TERMS)
Types of search

(NAME, SELF, NOTE, RT, JV)

NAME Highest level company name information

Note (SELF, NOTE)

RT Related Term (SELF, RT, NAME, NOTE)

To complete the search it should be combined with an 'ordinary' search in the name fields (/CS, /PA – cf. search examples).

22.9.4 USPATFULL, USPAT2, USPATOLD

In USPATFULL the /PA field is often not filled for patent applications (see above). The full text of the granted patent including the name of the patent assignee is usually entered in USPAT2. The name of the patent assignee is not added in USPATFULL.

Since April 2015, the USPTO has delivered data on Corporate Patent Application Names for US patent applications. These are entered into the USPA field in the USPATFULL and USPAT2 databases:

AN 2016:241025 USPATFULL
TI METHOD, SYSTEM AND DEVICE FOR IMPROVED STORAGE AND HANDLING OF COMPONENTS
IN JACOBSSON, Nils, Taby, SWEDEN
JONASSON, Roger, Taby, SWEDEN
USPA MYCRONIC AB, Taby, SWEDEN
F1 US 20160212899 A1 20160721
A1 US 2016-15022799 A1 20160317
WO 2014-EP69831 20140917
PCT 371 date
PRAI US 2013-61879172 20130918
DT Utility
FS APPLICATION

For patent applications, there are thus the following cases of patent assignee names being shown:

- PA field only
- USPA field only
- Both PA and USPA fields
- Neither the PA field nor the USPA field is available

There is a super-search field, /PASS, that can be used to search both the patent assignee (PA) and the Corporate Patent Application Name (USPA). It is advisable to use this search field when searching by patent applicant/patent assignee in the USPATFULL and USPAT2 databases.

Information on the inventor and assignee addresses is available in specific SEARCH fields:

- /IN, /PA, /USPA — Name
- /IN.CNY, /PA.CNY, /USPA.CNY — Country
- /IN.CTY, /PA.CTY, /USPA.CTY — City
- /IN.ST, /PA.ST, /USPA.ST — State
- /IN.ZIP, /PA.ZIP, /USPA.ZIP — ZIP Code

22.9.5 IFIALL

In the /PA field, in addition to the name the assignee number is searchable.

In addition to the name, the location and country can be searched in the /INF (inventor) and /PAF (assignee) fields. The search is carried out using single words (word index), and (W) is implied proximity:

=> S (MOTOROLA AND CA) /PAF
18526 MOTOROLA /PAF
269293 CA /PAF
L28 38 (MOTOROLA AND CA) /PAF
22.10 PATDPFULL

Records for utility models do not contain the inventor names.

The country of the inventor is searchable in the /INA field (two letter code and partly the text). The country of the patent assignee is searchable in the /PAA field (two letter code and text).

The agent can be searched in the /AG field.
23 Search by formal data
(Publication and application data)

23.1 Search fields

Information on publication, application, and priority is displayed as a dataset in the DISPLAY fields PI, AI and PRAI. These fields have a largely uniform structure:

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>DE 102012013810</td>
<td>B4 20130117</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AI</td>
<td>DE 2012-102012013810 A 20120712</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRAI</td>
<td>DE 2012-102012013810 A 20120712</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The data are subdivided in search fields enabling the user a straightforward search for specific items.

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PI</td>
<td>DE 102012013810</td>
<td>B4 20130117</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AI</td>
<td>DE 2012-102012013810 A 20120712</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRAI</td>
<td>DE 2012-102012013810 A 20120712</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As can be seen here, this indexing is applied uniformly to the Publication Information, Application Information, and Priority Application Information. (Only the SEARCH field /AP does not follow this system, but /AN is used for the Accession Number.) The fields for information on Related Patents, /RLI, and Cited patent and non-patent literature, /REP, are similar in their structure. Subdivision into search fields is applied as above.

Other fields are only available in certain databases. In INPADOCDB, there are e.g. the Application Information Type /AIT and Priority Application Information Type /PRAIT search fields. As there is often more than one priority application there is another useful search field in many databases: Priority Year First /PRYF.

As can be seen here, this indexing is applied uniformly to the Publication Information, Application Information, and Priority Application Information. (Only the SEARCH field /AP does not follow this system, but /AN is used for the Accession Number.) The fields for information on Related Patents, /RLI, and Cited patent and non-patent literature, /REP, are similar in their structure. Subdivision into search fields is applied as above.

Other fields are only available in certain databases. In INPADOCDB, there are e.g. the Application Information Type /AIT and Priority Application Information Type /PRAIT search fields. As there is often more than one priority application there is another useful search field in many databases: Priority Year First /PRYF.

In the course of further standardization of the patent databases, the following Super-SEARCH fields are defined: /PATS for Patent Numbers, /APPS for Application Numbers (serial number), and /PCS for Patent Countries (Publication Country/Designated State).

It is advised to check for availability of data and their indexing format before a search by publication or application data using the EXPAND command:

```
=> E DE97-1970005/ AP 5
E1 1 DE97-1970004/ AP
E2 1 DE97-1970004/ AP
E3 0 => DE97-1970005/ AP
```
It can be seen if the number entered is in the index and, if not, if the number format was correct at all (for example, it can be seen that German application numbers are indexed with eight digits, in the example one digit is missing). The number formats are described in more detail in the sections below.

Sometimes the details of old documents are incomplete in INPADOCDB/INPAFAMDB. In these cases the European Patent Office uses dummy numbers.

23.2 Search by country

When searching by country (Priority Country /PRC, Application Country /AC, Publication Country /PC, Designated State in the international or European procedure /DS, Related Document Country /RLC, Referenced Patent Country /RPC) one should always use the two-letter country code. The query should be linked directly with a further query (e.g., limit of period), otherwise, the system limits will be reached very fast in some databases (INPADOCDB/INPAFAMDB) and frequently cited countries such as Japan (JP).

=> $L11.AND.DE/AC
L12 1715954 DE/AC
L12 246181 RU/PC

The fully spelled name of the country is also available in the databases, but, depending on the individual databases, various languages are used (English, German).

To cover the patents of a particular country in addition to the Publication Country, /PC, the Designated State of the international and European procedure, /DS, must also be searched. There is a Super-Search-Field, /PCS, covering just these fields.

=> $RU/PCS
99367 RU/PC
146614 RU/DS
L2 246181 RU/PC

Note that the applicant of a PCT or EP application does not have to make his final decision about the designated states at the time of application. If the designated states are changed later this information can be found for example in the legal status in INPADOCDB/INPAFAMDB.

In INPADOCDB/INPAFAMDB the fields AC.WO and PRC.WO can be used to get the number of applications of a particular country.

=> E DE/AC,AC.WO,PRC.WO
E1 235007 DD/AC
E2 1 DD/PRC.WO
E3 5660160 ... DE/AC
E4 49035 DE/AC.WO
E5 128039 DE/PRC.WO
E6 337842 DENMARK/AC
E7 11998 DENMARK/AC.WO
E8 43412 DENMARK/PRC.WO
E9 337842 DK/AC
E10 11998 DK/AC.WO
E11 43412 DK/PRC.WO
E12 1455 DZ/AC

23.2.1 Note on Designated States

The Designated States in PCT applications are entered in different sections – RW and W. The countries after the code W (World) are PCT designations to national offices. The countries after the code RW (Regional World) are designations to a country via a regional office (EPO, EAO, ARIPPO, OAPI). For EP applications there is only the code R (Regional).

PI WO 2005014251 A1 20050217 (200515)* EN 19 B28C007:04
RW: AT BE BG BW CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NA NL OA PL PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LL LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TW TR TT TZ UA UG
To search for a country with a particular designation code use the /DS field:

```plaintext
=> S W IT/DS
L17  256 W IT/DS
=> S RW IT/DS
L18  881330 RW IT/DS
=> S R IT/DS
L19  1218699 R IT/DS
```

The field DS always contains the countries as published on the respective publication. There may be changes between the A and B publications of the EPO.

### 23.3 Search by date

In a search for date specifications (Priority Date, /PRD, Application Date, /AD, Publication Date, /PD, Date for a Relation, /RLD, Entry Date, /ED, Updating Date, /UP) it is most favourable to use the uniform date format:

```
YYYYMMDD
19990909
```

| YY | Year, four digits (a two-digit input will be edited automatically) |
| MM | Month, two digits |
| DD | Day, two digits |

If longer periods (weeks, months) are to be searched, range searching is possible in the date fields.

```plaintext
=> S 19990601-19990630/PD
L7       30852 19990601-19990630/PD
```

If years are to be searched, the SEARCH fields /PRY, /AY, /PY (Year, four digits) can be used in addition to a range search. A search for longer periods (several months, several years) should always be linked with another query, in order to avoid exceeding the system limits (especially in INPADOCDB/INPAFAMDB).

### 23.4 Search by priority and application numbers

When searching for Priority and Application Numbers (Priority Number, /PRN, Application Number, /AP), it is advisable to use the STN standard format or the Derwent format.

The STN standard format has this structure:

- For applications except PCT, DE (from 2004) and US (from series 13 or from Dec. 18, 2010):
  ```plaintext
  CCKKKK-AAAAAAnnnnn
  B1234567
  ```

- For PCT applications:
  ```plaintext
  WOYYYY-ccnnnnnn
  WO1999-DK63
  ```

- For DE applications (from 2004):
  ```plaintext
  CCYYYY-ZZYYYYNNNNNN
  DE2004-102004002764
  ```

- For US applications (INPADOC, DWPI, CAPLUS, full-text databases):
  - Patent applications from series code 13
  - Provisional applications, series code 61 from Dec. 18, 2010 (priority numbers only)
  - Design applications, series code 29 from Dec. 18, 2010
Guide to STN Patent Databases

CC – Country (two-letter-code)

YYY – Year (application numbers with a year before 2000 are indexed with two-digit year, application numbers starting from 2000 are indexed with four-digit year; Japanese emperor year is converted into Gregorian year)

aaa – Optional, digit or letter

n – Digit, optional

N – Digit

ZZ – Digits, designate the type of intellectual property (see “Number formats”)

SC – Digits, US series code

It is advisable to always use a four-digit year, as for years before 2000 a four-digit year will be edited by the Messenger Field Edit system automatically:

=> S JP1997-245415/AP
L7 1 JP1997-245415/AP
   | JP97-245415/AP

If a year is embedded in the application number, as for example a two-digit year in German application numbers, it is kept as a two-digit number. If a four-digit year is embedded it is kept as such.

The year is always displayed in four digits by the system (in DISPLAY, SORT, SELECT commands).

These examples are to illustrate the conversion of application numbers into the formats common in patent databases (STN, DERWENT):

<table>
<thead>
<tr>
<th>Original number</th>
<th>STN format</th>
<th>Derwent format</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE Application</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to 1995</td>
<td>P 44 44 400.1</td>
<td>DE1994-4444400</td>
</tr>
<tr>
<td>from 1995</td>
<td>100 00 004.5</td>
<td>DE2000-10000004</td>
</tr>
<tr>
<td>from 2004</td>
<td>10 2004 002 764.1</td>
<td>DE2004-102004002764</td>
</tr>
<tr>
<td>EP Application</td>
<td>91100382.0</td>
<td>1991EP-100382/AP</td>
</tr>
<tr>
<td>PCT Application</td>
<td></td>
<td></td>
</tr>
<tr>
<td>from 2000</td>
<td>PCT/US00/18873</td>
<td>WO1998-US18873</td>
</tr>
<tr>
<td></td>
<td>PCT/NL2003/000517</td>
<td>WO2003-NL00517</td>
</tr>
</tbody>
</table>

* The check digit following the dot in DE or EP application numbers is not taken into account for conversion.

If only an Application Number without a year is available this may be masked with exclamation marks (!, four digits):

=> S US!!!!!-12345/AP
L8 8 US!!!!!-12345/AP

Using SELECT, the Application Numbers can then be retrieved from the documents found:

=> SEL 1-8
E1 THROUGH E8 ASSIGNED

=> D SEL
E1 1 US1935-12345/AP
E2 1 US1960-12345/AP
E3 1 US1979-12345/AP
E4 1 US1987-12345/AP
E5 1 US1993-12345/AP
E6 1 US1998-12345/AP
E7 1 US2001-12345/AP
E8 1 US2004-12345/AP
23.4.1 Notes

- US serial numbers on the printed patent specification consist of the serial code and a six-digit serial number, e.g.: 09/932,243

<table>
<thead>
<tr>
<th>Serial code</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Earlier than Jan. 1, 1948</td>
</tr>
<tr>
<td>15</td>
<td>Jan. 2016 – present</td>
</tr>
<tr>
<td>29</td>
<td>Design applications filed beginning in January 1993</td>
</tr>
<tr>
<td>61</td>
<td>Provisional Applications Jan. 1, 2008 – present</td>
</tr>
<tr>
<td>90</td>
<td>Ex parte reexamination proceedings</td>
</tr>
<tr>
<td>95</td>
<td>Inter parte re-examination proceedings</td>
</tr>
</tbody>
</table>

- German application and publication numbers have the same serial number. The format of these numbers is described in section ‘Search by document number’ and in the “Number formats” survey.

- Some countries use the same numbers both for Patent and Utility Model Applications. To distinguish a ‘U’ is appended to the numbers of utility models (in INPADOCDB/INPAFAMDB and DWPI).

=> D TI PI AI PRAI

L16  ANSWER 1 OF 1  INPADOCB COPYRIGHT 2007 EPO/FIZ KA on STN
TI  TRAININGSGERAT FUER PFERDE.
PI  AT 6710U          U1 20040325
AI  AT 2003-318U       U 20030508
PRAI DE 2002-2015987    U 20021017 (DEU)

=> D TI PI AI PRAI

L18  ANSWER 1 OF 1  WPINDEX COPYRIGHT 2007 THE THOMSON CORP on STN

TI  Digital broadcast program recorder e.g. video recorder, outputs image signal to display electronic program guide information and relative time obtained from CPU by using hard disk drive
AI  US 2003-458935 20030611
PRAI JP 2002-3581U 20020613

- US patent law has Provisional Applications. These may be used as a Priority Application. In order to distinguish these Priority Numbers a ‘P’ is appended (in all patent databases):

=> E US1998-99262P/PRN
E1  3  US98-99262P/PRN
E2  1  US98-99262/PRN
E3  5  > US98-99262P/PRN
E4  2  US98-99263P/PRN
E5  1  US98-99264/PRN

=> D PI AI PRAI
PI  US 6597406          B2 20030722
AI  US 2001-771238       A 20010126
PRAI US 2001-771238     A 20010126 (USA)
US 1998-160534           A 19980924 (USA)
US 1998-99262P           P 19980904 (USP)
For provisional applications with the series code 61 from application date Dec. 18, 2010 the series code is included in the priority application number. This makes the number unique and there is no need to append "P" any more (INPADOC, DWPI, CAPLUS, full-text databases):

- Several application numbers with appended codes may exist. With INPADOCDB, INPAFAMDB now covering patent applications starting from 1836, overlapping ranges of serial numbers are more likely (see INPADOCDB/INPAFAMDB Numbers with appended codes).

- For certain types of division it may be that the application year in the application number does not match the application year in the date.

- Particulars of the priority fields in the various databases

The PRAI, /PRN field only has data if a foreign priority was actually claimed: USPATFULL, USPAT2, USPATOLD, IFIALL

The PRAI, /PRN field does not exist: RUSSIAPAT

The PRAI, /PRN field may contain non-standardized priority numbers: PATDPAFULL, PCTFULL

There is a PRAO, /PRNO field that contains the original (non-standardized) priority numbers. This field is filled either in addition to the PRAI field or only this field is the pre-defined display formats: PATDPAFULL, EPFULL, PCTFULL, FRANCEPAT, KOREAPAT, RUSSIAPAT, FRFULL, GBFULL

- In some databases the original application numbers are recorded in the APO field (KOREAPAT, RUSSIAPAT). These fields are not included in the pre-defined display formats. This may apply to document numbers in the PNO field too.

23.5 Search by document number

Document numbers (Publication Numbers), just as Application Numbers, can have very varying formats depending on the patent office, e.g. just a serial number, a number with preceding year, identical with the digit sequence of the Application Number, etc. Often, to distinguish the publication status within the patent procedure, the Document Kind Code is specified as well. Examples:

DE 19919951 A1
DE 10 2004 002 764 A1
DE 20 2004 000 023 U1
When searching for a document number (SEARCH field /PN) on STN International, a uniform format is to be used in all databases. This format has the following structure:

- For numbers of up to 7 digits:
  \[CCnnnnnnN\]

- For numbers of 8 digits:
  \[CCNNNNNNNN\]

- For numbers of 12 digits:
  \[CCZ\]
  \[ZZYYYYNNNNNN\]

- For numbers with a leading/trailing year (19YY):
  \[CCYYNNNNN\]

- For numbers with a leading/trailing year (20YY):
  \[CC20YYNNNNN\]

**CC** – Country (Two-letter code)

**n** – Optional digit; enter without a leading zero or punctuation. (A leading zero due to the Japanese year of the emperor should be entered and will be removed by the STN search system if necessary.)

**N** – Digit

**ZZ** – Digits, designate the type of intellectual property (see “Number formats”)

**YY/YYYY** – Year (two or four-digit)

From the publication year 2000 patent numbers with a leading or trailing year will always be indexed as a 2-4-6 string, i.e. 2 characters for the country, 4 digits for the year, and 6 digits for the number. A trailing year will be moved to the front (e.g. Australia). The numbers of US or WO Applications may be entered both as a 2-4-6-string or using the original format from the document (automatic field edit).

When searching the document kind code must be omitted in the /PN search field. The search queries for the above numbers would look like this:

- \(=> S\) DE19919951/PN
- \(=> S\) DE102004002764/PN
- \(=> S\) DE202004000023/PN
- \(=> S\) EP50443/PN
- \(=> S\) US4718426/PN
- \(=> S\) US20010006158/PN
- \(=> S\) WO9912345/PN
- \(=> S\) WO2000004255/PN

To search the publication number together with the document kind code use the /PNK field.

It is advisable to adhere to these number formats. Anyway, if a number is entered in a different format it will in many cases be edited automatically to some degree:

- \(=> S\) WO9912345/PN
- \(LS\) WO9912345/PN (WO9912345/PN)

### Notes

#### 23.5.1 Utility models

In some countries, the same number range is used both for Patent and Utility Model Publications. To distinguish these numbers a ‘U’ is appended to Utility Model numbers, e.g.:

<table>
<thead>
<tr>
<th>Country</th>
<th>Number Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP</td>
<td>0 050 443 B1</td>
</tr>
<tr>
<td>US</td>
<td>4,718,426</td>
</tr>
<tr>
<td>US</td>
<td>2001/0006158 A1</td>
</tr>
<tr>
<td>WO</td>
<td>99/12345 A1</td>
</tr>
<tr>
<td>WO</td>
<td>00/04255 A1</td>
</tr>
</tbody>
</table>
23.5.1.2 Overlapping number series of different publication types

In some countries, the same ranges of numbering are used for different types of publications. A letter for the publication type is appended to the numbers for these countries.

- **China:** The Publication Number ranges of the examined and unexamined patent publications from China overlap. Thus, a ‘C’ is appended to the numbers of granted patents (Patent Kind Code CNC):

  ```
  => E CN1060260/PN 6
  E1 1 CN1060259/PN
  E2 1 CN1060259C/PN
  E3 1 ... CN1060260/PN
  E4 1 CN1060261/PN
  E5 1 CN1060261C/PN
  E6 1 CN1060261C/PN
  ```

- **Hungary, Lithuania, Monaco:** For these, the Patent Kind Code is appended to the number, too.

- **USA:**
  - As the number series of US publications overlap a letter should be appended to the number when searching certain types of IP publications (INPADOCDB, INPAFAMDB, DWPI). In the US databases a letter may be appended in the search query, however it is removed by SEARCH EDIT. The display format of the document numbers is dependent on the database (see appendix Publication Numbers).

<table>
<thead>
<tr>
<th>Document type</th>
<th>SEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S USnnnnnnNE/PN</td>
</tr>
<tr>
<td>Reissues from Jan. 2, 2001</td>
<td>S US37166E/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnNE/PN</td>
</tr>
<tr>
<td>Defensive Publications</td>
<td>S US105702T/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnNT/PN</td>
</tr>
<tr>
<td>Statutory Invention Registration before Jan. 2, 2001</td>
<td>S US1889H/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnNH/PN</td>
</tr>
<tr>
<td>Statutory Invention Registration from Jan. 2, 2001</td>
<td>S US1942H/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnNH/PN</td>
</tr>
<tr>
<td>Design Patents before Jan. 2, 2001</td>
<td>S 548425D/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnND/PN</td>
</tr>
<tr>
<td>Design Patents from Jan. 2, 2001</td>
<td>S US444511D/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnND/PN</td>
</tr>
<tr>
<td></td>
<td>S USnnnnnnNP/PN</td>
</tr>
<tr>
<td>Plant Patents from Jan. 2, 2001</td>
<td>S US20010011366P/PN</td>
</tr>
<tr>
<td></td>
<td>S US20YYNNNNNNNP/PN</td>
</tr>
</tbody>
</table>

- In USPATOLD there are special number formats for Reissues: USRENNNNNN

  ```
  => D AN TI PI PRAI PRAIS
  L13 ANSWER 1 OF 1 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
  AN 16891265
  TI Method and apparatus for pumping volatilizing gas from container to pump.
  PI CN 1060260C C 20010103
  PRAI US 1992-870462 A 19920417 (USA)
  PRAIS USA Patent application
  ```

  and for very old patents: USXNNNNNNN

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Types of search

- More publication numbers with appended codes may exist. With INPADOCDB, INPAFAMDB now covering patent applications starting from 1836, overlapping ranges of publication numbers are more likely (see INPADOCDB/INPAFAMDB — Numbers with appended codes and Number formats (Publication numbers)).

23.5.2 Note on DWPI

There is a field LA (Language) with the filing language of the respective patent (useful for countries where applications may be filed in several languages, e.g. CA, EP, WO). The LA field is linked to the corresponding patent information details by (P) proximity:

```
=> $ EP/PC (P) DE/LA
L10 369210 EP/PC (P) DE/LA
```

23.5.3 Note on German document numbers

German publication numbers are identical to the corresponding application numbers. From 01 Jan. 2004 there are new formats for application numbers of patents, utility models and topographies, from 01 Jan. 2005 for trademarks, design patents and typographies. See the appendix for an explanation of the numbers.

23.5.4 Note on IT document numbers

The document number and the application number alike include the province of the assignee. For entry in the database, letters are converted into figures using a list of provinces. Alternatively, you can search for the application number, as this will be used for the document number.

For patent applications and utility models the same number series are used. Therefore it is recommended to include the document type code (/PK) in your search.

(See appendix “Italy”)

23.5.5 Note on US document numbers

Since 15 March 2001, applications for US patents are being published in addition to granted patents. The number formats and publication kind codes can be found in the appendices to this guide.

Different number formats are used for patent applications, reissues and granted patents. In STN databases the numbers of new documents are included in the PI field of the existing document (USPATFULL, DWPI) or in new publication segments (INPADOCDB). Earlier publications are not shown on the printed documents.

23.5.6 Note on IN document numbers

Patent numbers in India (INA1) consist of the two-letter code IN and a serial number of up to 6 digits:

- IN nnnnnN
  - IN 180407

Until 2004: Publication numbers of applications (INA) until 2004 consist of the two-letter code IN and a serial number of up to 6 digits: IN nnnnnN.

2005-2015: Since the introduction of the Patents (Amendment) Rules 2005 the six-digit serial number is only assigned upon grant of patent; applications are now being published under their application numbers. The numbers are standardized when the documents are entered into the database, which means that the three-letter code for the responsible patent office is shortened to two letters and the number is padded with zeros to five digits.
Office | On the publication | STN format | /PK in DWPI
---|---|---|---
National applications | nnnN/OFF/YYYY | IN YYYYOFNNNNN | 
Delhi | 1713/DEL/2010 | IN 2010DE01713 | I1
Kolkata (formerly Calcutta) | 861/KOL/2008 | IN 2008KO00661 | I2
Mumbai (formerly Bombay) | 1911/MUM/2006 | IN 2006MU01911 | I3
Chennai (formerly Madras) | 2108/CHE/2012 | IN 2012CH02108 | I4
Nationalisation of PCT applications | nnnN/OFFNP/YYYY | IN YYYYOFNNNNN | 
Delhi | 6541/DELNP/2008 | IN 2008DN06541 | P1
Kolkata | 2712/KOLNP/2013 | IN 2013KN02712 | P2
Mumbai | 2067/MUMNP/2010 | IN 2010MN02067 | P3
Chennai | 8377/CHENP/2010 | IN 2010CN08377 | P4

YYYY – year, 4 digits; OFF, OF – code for the office, 3 and 2 letters; N – digit; n – digit, optional.

For national phase publications of PCT applications the second letter is replaced with ‘N’.

In DWPI, these publication numbers (displayed kind code INA) can be searched with the publication kind codes INI1, INI2, INI3, INI4 or INP1, INP2, INP3, INP4, respectively, in the /PK field. The numbers 1 to 4 represent the patent offices Delhi, Kolkata, Mumbai, Chennai.

**From 2016:** The Indian Patent Office introduced a new patent numbering format for applications filed from January 2016 onwards. On STN, Indian patent publications with the new numbering format are covered in the regular updates of DWPI, CAplus, and INFULL. The new numbering system makes use of two digits to indicate the regional offices in India (J) and the type of application (T). The old regional office codes have been replaced by a digit ranging from 1 to 4, corresponding to the four regional patent offices in India:

<table>
<thead>
<tr>
<th>J</th>
<th>Regional Office</th>
<th>T</th>
<th>Type of application</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Delhi</td>
<td>1</td>
<td>Ordinary Application</td>
</tr>
<tr>
<td>2</td>
<td>Mumbai</td>
<td>2</td>
<td>Ordinary-Divisional Application</td>
</tr>
<tr>
<td>3</td>
<td>Kolkata</td>
<td>3</td>
<td>Ordinary-Patent of Addition Application</td>
</tr>
<tr>
<td>4</td>
<td>Chennai</td>
<td>4</td>
<td>Convention Application</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>5</td>
<td>Convention-Divisional Application</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>6</td>
<td>Convention-Patent of Addition Application</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>7</td>
<td>PCT National Phase Application</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>8</td>
<td>PCT National Phase-Divisional Application</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>9</td>
<td>PCT National Phase Patent of Addition Application</td>
</tr>
</tbody>
</table>

The STN numbering format is consistent with the original format comprising a total of 12 digits. Patent publications in the new numbering format have kind code A assigned:

- Publication number: INYYYYJTNNNNNN A — e.g. IN201641016472
- Application/Priority number: INYYYY-JTNNNNNN — e.g. IN2016-41016472

### 23.5.7 Note on JP document numbers

Japanese publication numbers before 2000 appear on the original document like this:

6-11796
EE_NNNNNN

The first number denotes the year of the Emperor (EE), the second part is the actual number. Conversion between the year of the Emperor and the Western year is as follows:

<table>
<thead>
<tr>
<th>Emperor</th>
<th>Era</th>
<th>First year of reign</th>
<th>Conversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hirohito</td>
<td>Showa</td>
<td>1926</td>
<td>+1925</td>
</tr>
<tr>
<td>Akihito</td>
<td>Heisei</td>
<td>1989</td>
<td>+1988</td>
</tr>
</tbody>
</table>

From May 1996 (for patents) and from 2000 (for applications) only the Western year is used. On how to use the numbers on STN see the survey “Number formats (publication numbers)” enclosed with this guide.

<table>
<thead>
<tr>
<th>Document type</th>
<th>SEARCH</th>
<th>DISPLAY (STN format)</th>
</tr>
</thead>
</table>
| | $JP06011796/PN | JP 06011796 A
| | $JP0E0NNNNN/PN | JP E0NNNNN A
| | $JP0E0NNNNN/PN | JP E0NNNNN A

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Types of search

<table>
<thead>
<tr>
<th>Document type</th>
<th>SEARCH</th>
<th>DISPLAY (STN format)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S JP00YYNNNNNN/PN</td>
<td>JP 00YYNNNNNN A</td>
</tr>
<tr>
<td></td>
<td>S JPEENNNNNNB/PN</td>
<td>JP EENNNNNN B</td>
</tr>
<tr>
<td>C-documents (Granted patents, until March 1996)</td>
<td>S JP2139594/PN</td>
<td>JP 2139594 C</td>
</tr>
<tr>
<td></td>
<td>S JPNNNNNN/PN</td>
<td>JP NNNNNN C</td>
</tr>
<tr>
<td>B-documents (published registered patent specification, from May 1996)</td>
<td>S JP2763879B/PN</td>
<td>JP 2763879 B</td>
</tr>
<tr>
<td></td>
<td>S JPNNNNNNXB/PN</td>
<td>JP NNNNNN X B</td>
</tr>
<tr>
<td>B1-documents (published registered patent specification without previous A2 publication)</td>
<td>S JP2852740B/PN</td>
<td>JP 2852740 B1</td>
</tr>
<tr>
<td></td>
<td>S JPNNNNNXNB/PN</td>
<td>JP NNNNNN X B1</td>
</tr>
<tr>
<td>Utility model</td>
<td>S JP07039349U/PN</td>
<td>JP 07039349 U2</td>
</tr>
<tr>
<td></td>
<td>S JPNNNNNNUU/PN</td>
<td>JP NNNNNNUU U2</td>
</tr>
<tr>
<td>Utility model, published after examination</td>
<td>S JP2585094U/PN</td>
<td>JP 2585094 Y1</td>
</tr>
<tr>
<td></td>
<td>S JPNNNNNNU/PN</td>
<td>JP NNNNNN Y1</td>
</tr>
<tr>
<td>Utility model, examined, 2nd publication</td>
<td>S JP2604277/PN</td>
<td>JP 2604277 Y2</td>
</tr>
<tr>
<td></td>
<td>S JPNNNNNN/PN</td>
<td>JP NNNNNN Y2</td>
</tr>
</tbody>
</table>

All kinds of documents can be searched with truncation, e.g.:

=> S JP06011796?/PN

Usually EXPAND is recommended.

The numbering of publications is done separately for each document type. This means that:

- Documents of different publication levels, although being members of the same patent family, are likely to have different publication numbers and
- Documents of different publication levels having the same publication number are rather unlikely to belong to the same patent family.

For a clear distinction of document types the document kind code must be specified in addition to the publication number.

Due to the publication system having changed from a publication of the examined application (with a three months' pre-grant opposition period) to publication of the granted patent (with a six months' post-grant opposition period) numbering has been changed for these documents to consecutive numbers starting from 2500001 with the publication kind code B from May 1996.

JAPIO only contains unexamined applications. In World Patents Index all publications of the national patent family are included in the PI field. The ADT field gives information on which publication relates to which application number. In INPADOCDB the members of the national family are entered into new publication segments. The application number can also be used to identify documents based on the same application.

JP documents show the publication number (as illustrated in the above format) and the publication date (including Emperor and Western years, in Roman characters), B documents show the relevant data of an earlier publication additionally (code A, T).

23.5.8 Note on KR document numbers

Current Korean publication and patent numbers on the printed documents include a code for the type of publication (10 = patent, 20 = utility model, 30 = design); this code is not included in the document number format on STN. The number of digits is different, too.

Example:

- Printed Korean number: 10- 2004- 0009844
- STN publication number: KR 2004009844 A
23.6 Search by patent kind code

Often it is necessary to use a document kind code together with a patent number, e.g. in legal status searches, or to restrict the scope of the search to certain types of documents in a subject or SDI search strategy. To do this, the publication kind codes must be entered in this format:

\[ CCnn \]

- **CC** – Country (Two-letter code)
- **n** – Optional, letter, digit, or space

In some databases (e.g. INPADOCDB, INPAFAMDB, PATDPA) the meaning of the PK entry can be seen in the PIT (patent information type) field:

\[ => E EPA/PK 6 \\
E1 662 EEU1/PK \\
E2 10368 EGA/PK \\
E3 483 EPA/PK \\
E4 1163265 EPA1/PK \\
E5 640691 EPA2/PK \\
E6 468255 EPA3/PK \]

\[ => E EPA/PIT 6 \\
E1 9 EEU1 REGISTERED UTILITY MODEL/PIT \\
E2 10368 EGA PATENT FOR INVENTION / PATENT OF ADDITION/PIT \\
E3 0 EPA/PIT \\
E4 1163265 EPA1 APPLICATION PUBLISHED WITH SEARCH REPORT/PIT \\
E5 640691 EPA2 APPLICATION PUBLISHED WITHOUT SEARCH REPORT/PIT \\
E6 468255 EPA3 SEARCH REPORT/PIT \]

In the STN patent databases the so-called DOCDB coding is now used.

23.6.1 Notes on INPADOCDB/INPAFAMDB

23.6.1.1 The “Data Availability” (DAV) field

The various publication types are categorized into 12 categories. The category, together with the publication date, is entered in the “Data Availability” (DAV) field:

\[ PI DE 19928770 C2 20031120 \\
PIT DEC2 PATENT SPECIFICATION (SECOND PUBL.) \\
DAV 20031120 PRINTED- WITH-GRANT \\
STA GRANTED \\
AI DE 1999-19928770 A 19990623 \\
A1O DE19928770 \\
AIT DEA Patent application \\
PRAI DE 1999-19907169 A 19990219 (DEA1) \\
DE 1999-19913240 A 19990323 (DEA1) \\
DE 1999-19928770 A 19990623 (DEA, 20070322) \\
PRAO 199 07 169.1 \\
199 13 240.2 \\
PRAIT DEA1 Domestic priority claimed for patent \]

This information is searchable in the /DAV field:

\[ => S PRINTED- WITH-GRANT/DAV \\
L2 24439442 PRINTED- WITH-GRANT/DAV \]

The entries of the list and their meaning can be displayed with HELP DAV.

<table>
<thead>
<tr>
<th>DAV</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>gazette-reference</td>
<td>date of announcement of filed application in gazette</td>
</tr>
<tr>
<td>abstract-reference</td>
<td>date of separate publication of an abstract</td>
</tr>
<tr>
<td>supplemental-sep-reference</td>
<td>date of separate publication of a supplementary search report</td>
</tr>
<tr>
<td>gazette-pub-announcement</td>
<td>date of announcement of a granted application in a gazette</td>
</tr>
<tr>
<td>modified-first-page-pub</td>
<td>date of separate publication of a modified first page report</td>
</tr>
<tr>
<td>unexamined-not-printed-without-grant</td>
<td>date of making available to the public by viewing or copying on request, an unexamined document on which no grant has taken place on or before the said date</td>
</tr>
</tbody>
</table>
Types of search

<table>
<thead>
<tr>
<th>DAV</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>examined-not-printed-without-grant</td>
<td>date of making available to the public by viewing or copying on request, an examined document on which no grant has taken place on or before the said date</td>
</tr>
<tr>
<td>unexamined-printed-without-grant</td>
<td>date of publication by printing or similar process of an unexamined document on which no grant has taken place on or before the said date</td>
</tr>
<tr>
<td>examined-printed-without-grant</td>
<td>date of publication by printing or similar process of an examined document on which no grant has taken place on or before the said date</td>
</tr>
<tr>
<td>printed-with-grant</td>
<td>date of publication by printing or similar process of document on which grant has taken place on or before the said date</td>
</tr>
<tr>
<td>claims-only-available</td>
<td>date of publication by printing or similar process of the claims only of a document</td>
</tr>
<tr>
<td>claims-only-available</td>
<td>date of making available to the public by viewing or copying of request of a document on which grant has taken place on or before the said date</td>
</tr>
</tbody>
</table>

23.6.1.2 The “Patent Status” (STA) field

The “Patent Status” (STA) field shows whether this is a GRANTED or a PRE-GRANT PUBLICATION. This offers a simple way to limit the search result to granted patents.
24 Family search

24.1 Typical family searches

- Oppositions against competitors’ patents: to monitor the patent families in order to be able to submit an opposition immediately when a patent is granted (e.g. DE or EP)
- Identification of potential markets for certain technologies
- Monitoring competitor activities in certain markets
- Finding family members in English (German)
- Finding family members for obtaining full-text documents
- “Freedom to operate”: Use of technologies in countries, where there is no patent protection
- Commercial evaluation and utilization of patents: it is important in how many and in which countries patents were applied for, e.g. in licensing negotiations or Due Diligence in mergers and acquisitions

24.2 International patent families

All patent publications in different countries that concern the same invention, form a patent family. The members of this patent family refer to the same initial patent application (the priority application). The legal basis for this is the Paris Convention for the Protection of Industrial Property of 1883. If a patent application is filed in any member state of the Paris Convention further applications can be filed in other member states within the priority term of one year and claim the priority of the first application. Merging world-wide patent publications into one family representing an invention is an effective and time-saving way both for database producers creating family-based databases and for patent searchers to evaluate their search results.

The publications of family members of one country are called national patent families.

Types of patent families include:

- Conventional patent family
  - The same priority application(s)
  - The same applicant/inventor
  - The same subject matter
- Non-conventional patent family
  - No claim to the same priority application
  - The same applicant/inventor
  - The same subject matter
- Technical patent families
  - The same subject matter
  - Competing patent applications

When referring to patent families this usually means conventional patent families. These are covered in all data bases having patent families. Non-conventional and technical patent families are much more special and are covered in few patent databases (INPADOC, DWPI, CAPLUS).

It is common that not only one priority but multiple priorities are claimed. This can lead to very complex patent families. To understand these patent families it is necessary to look into the patent law of the individual countries. One finds a few terms in this context, which, however, we will not explain here:

\[2\] The right to a priority can be transferred.
Types of search

- Multiple priority and partial priority,
- DE: Internal Priority, Division, Additional Application, Utility Model Derivation,
- US: Continuation, Continuation-in-part, Division, Provisional Application.

24.2.1 Publications within one patent family

- National applications: each family member as an application and a publication/patent number,
- International applications: application is made through the PCT procedure
  - Granted national patents get a number
  - Entry into the national phase is published by these countries in the legal status: AR, AT, AU, BE, BR, CA, CH, CN, CO, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HK, HU, IE, IL, IT, JP, LT, LU, MC, MD, NL, NO, NZ, PE, PH, PL, PT, RU, SE, SI, SK, TW, US, WO, ZA
  - Non-entry into the national phase of PCT applications is published by these countries in the legal status: CA, DE, JP, KR
  - In the national phase of the PCT procedure there may be publications with the following publication kind codes (depending on national law):
    o T* – Translation
    o B*/C* – Grant
    o A* – National re-publication
- European applications: application and grant are made through the EPO, some countries assign a national application/publication number:
  - Countries with national application/publication numbers: AT, CY, DE, ES, HR, IE, …
  - Information in the EP legal status “Corresponds to”, “Entry Into National Phase” or information on payment of maintenance fees: AT, BE, BG, CH, CZ, CY, DE, DK, EE, ES, FI, FR, GB, GR, HK, HU, IE, IL, IT, LI, LT, LU, LV, MC, MD, NL, PL, PT, RO, RU, SE, SI, SK, TR
  - In the national phase of the PCT procedure there may be publications with the following publication kind codes (depending on national law):
    o T* – Translation
    o DED1 – National number for EP Patent with DE designation, etc.

24.2.2 Example of a simple patent family

- Family involving EP procedure

<table>
<thead>
<tr>
<th>Priority application</th>
<th>Applications claiming priority</th>
<th>Publication of the application</th>
<th>Grant of patent</th>
<th>National number for EP patent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DOJ 2008-05-15</td>
<td>…</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DEA1 2008-05-21</td>
<td>…</td>
<td>DEB4 2008-09-18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EPA1 2008-05-20</td>
<td>…</td>
<td>EPB1 2010-01-06</td>
<td>DED1 2010-02-25</td>
</tr>
<tr>
<td>0</td>
<td>Up to 12 months</td>
<td>…</td>
<td>After 18 months</td>
<td>Up to 20 years patent term from application date</td>
</tr>
</tbody>
</table>
Family involving WO procedure

<table>
<thead>
<tr>
<th>Priority application</th>
<th>Applications claiming priority</th>
<th>Publication of the application</th>
<th>Publication in national phase of WO application</th>
<th>Grant of patent (national)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DE 2004-07-06</td>
<td>...</td>
<td>DEA1 2006-01-26</td>
<td>...</td>
<td>DEB4 2009-04-02</td>
</tr>
<tr>
<td>WO 2005-07-04</td>
<td>...</td>
<td>WOA1 2006-01-19</td>
<td>...</td>
<td>JPA 2008-02-21</td>
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<tr>
<td></td>
<td>...</td>
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<td>...</td>
<td>USA1 2007-08-02</td>
</tr>
<tr>
<td>0</td>
<td>...</td>
<td>Up to 12 months</td>
<td>...</td>
<td>After 18 months</td>
</tr>
</tbody>
</table>

24.3 Family information in STN patent databases

<table>
<thead>
<tr>
<th>Database</th>
<th>Countries</th>
<th>Families</th>
<th>Family relations</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA, CAPLUS</td>
<td>&gt;60 countries, including EP, WO</td>
<td>Selected families</td>
<td>National International, conventional</td>
</tr>
<tr>
<td>INPADOCDB, INPAFAMDB</td>
<td>95 Patent authorities, including EP, WO</td>
<td>95 countries, including EP and WO</td>
<td>National International, conventional</td>
</tr>
</tbody>
</table>

24.3.1 Family documents in the databases

Family document in DWPI (display format: IBIB):

<table>
<thead>
<tr>
<th>ACCESSION NUMBER:</th>
<th>2010-C36080 [19] WPINDEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITLE:</td>
<td>Producing a semiconductor wafer, comprises disposing the semiconductor wafer in a cutout in a carrier, and ...</td>
</tr>
<tr>
<td>DERWENT CLASS:</td>
<td>L03; U13</td>
</tr>
<tr>
<td>INVENTOR:</td>
<td>HAIR G; HEIER G; HEILMAIER A; ROETTGER K; GEREUHAREUTEU H; KEULRAUSEU R</td>
</tr>
<tr>
<td>PATENT ASSIGNEE:</td>
<td>(WACK-C) WACKER SILTRONIC GES HALBLEITERMATERIALI; (SILT-N) SILTRONIC AG</td>
</tr>
<tr>
<td>COUNTRY COUNT:</td>
<td>4</td>
</tr>
<tr>
<td>PATENT INFO ABBR.:</td>
<td></td>
</tr>
</tbody>
</table>

An asterisk * identifies the Derwent Basic patent
The family members are sorted in chronological order (Derwent Week).

<table>
<thead>
<tr>
<th>PATENT NO</th>
<th>KIND</th>
<th>DATE</th>
<th>WEEK</th>
<th>LA</th>
<th>PG</th>
<th>MAIN IPC</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN 101659027 A</td>
<td>201000303 (201019)</td>
<td>ZH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JP 20100056530 A</td>
<td>201000311 (201019)</td>
<td>JA 17</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KR 2010025470 A</td>
<td>201000309 (201020)</td>
<td>KO</td>
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<td></td>
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</tbody>
</table>

APPLICATION DETAILS:

<table>
<thead>
<tr>
<th>PATENT NO</th>
<th>KIND</th>
<th>APPLICATION DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 20100055908 A1</td>
<td></td>
<td>US 2009-547749 20090826</td>
</tr>
<tr>
<td>JP 20100056530 A</td>
<td></td>
<td>JP 2009-164436 20090713</td>
</tr>
<tr>
<td>CN 101659027 A</td>
<td></td>
<td>CN 2009-10168313 20090827</td>
</tr>
<tr>
<td>KR 2010025470 A</td>
<td></td>
<td>KR 2009-70077 20090730</td>
</tr>
</tbody>
</table>

PRIORITY APPLN. INFO: DE 2008-102008044646 20080827
Types of search
Each family member claims the same German priority.

- Family document in CAPLUS (display format: IBIB):

  ACCESSION NUMBER: 2010:275910 HCAPLUS
  TITLE: Method for producing a semiconductor wafer
  INVENTOR(S): Roettger, Klaus; Heier, Gerhard; Heilmayer, Alexander
  PATENT ASSIGNEE(S): Siltronic AG, Germany
  CODEN: USXXCD
  DOCUMENT TYPE: Patent
  LANGUAGE: English
  FAMILY ACC. NUM. COUNT: 1

  The Basic Patent is on the first line in the PI field. The family members are listed below, sorted by application date.

<table>
<thead>
<tr>
<th>PATENT NO.</th>
<th>KIND</th>
<th>DATE</th>
<th>APPLICATION NO.</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>US 20100055908</td>
<td>A1</td>
<td>20100304</td>
<td>US 2009-547749</td>
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<td>A1</td>
<td>20100325</td>
<td>DE 2008-102008044646</td>
<td>20080827</td>
</tr>
<tr>
<td>JP 20100058530</td>
<td>A1</td>
<td>20100311</td>
<td>JP 2009-164436</td>
<td>20090713</td>
</tr>
<tr>
<td>CN 101659027</td>
<td>A1</td>
<td>20100303</td>
<td>CN 2009-10168313</td>
<td>20090827</td>
</tr>
</tbody>
</table>

  Each family member claims the same German priority.

- Family document in INPAFAMDB (display format BRIEF: bibliographical details + patent family table):


  AN 380875177 INPAFAMDB EDF 20100204 EWF 201005 UPFB 20121122 UWF 201247
  TI Device for heating moulded parts, in particular of ceramic, moulded dental parts.
  ... INS LAUBERSHEIMER JUERGEN, CH; JUSSEL RUDOLF, AT; LAUTENSCHLAEGER W, CH; ...
  PAS IVOCLAR VIVADENT AG, LI IVOCLAR VIVADENT AG
  IPCI A61C0013-00 [I,A]; A61C0013-20 [I,A]; H05B0006-80 [I,A]
  CPC A61C0013-203; H05B0006-80; H05B2206-046
  EPC H05B0006-80
  ICO T05B0206:046; K61C0013:20M
  NCL NCLM 219/759.000
  INCL NCLM 219/759.000
  AB (EP 2150092 A2)
  The device has a microwave generator that impinges a susceptor with microwave radiation, where the susceptor is arranged between a molding ...

  PATENT FAMILY INFORMATION INPAFAMDB

  +-------- Publications +-------- Applications +--------
  DE 102008035235 A1 20100311 DE 2008-102008035235 A 20080729
  EP 2150092 A3 20110126
  EP 2150092 A3 20110126
  JP 2010029666 A 20100212 JP 2009-177124 A 20090729
  US 20100025395 A1 20100204 US 2009-455828 A 20090608

  +-------- Priorities +--------
  DE 2008-102008035235 A 20080729

  1 priority, 4 applications, 6 publications (1 EPO simple family)
Guide to STN Patent Databases


INPADOCDB/INPAFAMDB contain Design Patents from these countries: BR, CA, CR, DO, EC, GT, JP, US, UY, etc. These Design Patents may be combined into families with other IP rights via their priorities:

```
AN 75288892 INPADOCDB ED 20131128 EW 201348 UP 20140320 UW 201412
FN 50371044
TI Sole for a shoe.
IN YUDELOWITZ SAUL
PA SARK, LTD.; SARK, LTD
DT Design Patent
PI US 693548D S1 20131119 English
PIT US51 DESIGN PATENT
AI US 2012-29434066 F 20121009
AIT USF Design application
PRAI US 2012-29434066 F 20121009 (USF, 20131128, N)
 US 2012-13478061 A 20120522 (USA1, 20131128, Y)
PRAIT USF Design application
USA1 Prior application claimed for continuation
L5 ANSWER 1 OF 1 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN
```

**PATENT FAMILY INFORMATION**

```
AN 75288892 INPADOCDB
+-------------PRAI-------------+ +-------------AI-------------+
US 2012-13478061 A 20120522 US 2012-13478061 A 20120522
 US 2012-29434066 F 20121009
 WO 2013-1854190 W 20130521
US 2012-29434066 F 20121009 US 2012-29434066 F 20121009
+-------------AI-------------+ +-------------PI-------------+
US 2012-13478061 A 20120522 US 20130312292 A1 20131128
 US 2012-29434066 F 20121009 US 693548D S1 20131119
 WO 2013-1854190 W 20130521 WO 2013175406 A1 20131128
```

2 priorities, 3 applications, 3 publications (1 EPO simple family)

### 24.3.2 Quality improvements in INPADOC families by FIZ Karlsruhe

Priority, application and publication numbers need to be correct in order to be able to correctly bring together the patent families. FIZ Karlsruhe performs a quality inspection of the original data provided by EPO:

- New numbers are compared to standard formats; all numbers not meeting these standards are filtered, checked by a human and corrected
- Individual errors (e.g. wrong priority number on a document) are corrected by a human, using a variety of sources
- Error corrections are online very quickly, usually within one week

The UPFC update field shows how many mergers or splits were made at a given date:

```
=> E 2010/UPFC 25
E1 80 20091217/UPFC
E2 90 20091224/UPFC
E3 0 => 20100000/UPFC
E4 26 20100104/UPFC
...
E17 141 20100401/UPFC
E18 143 20100408/UPFC
E19 102 20100415/UPFC
E20 119 20100422/UPFC
E21 86 20100429/UPFC
E22 121 20100506/UPFC
E23 67 20100514/UPFC
E24 96 20100520/UPFC
```
24.3.2.1  Merger of patent families by correction of numbers
Correction of the priority number of US20090083750 (misprint on the original document):
CN2007-11017879 => CN2007-10178796

24.3.2.2  Split of false patent families by correction of numbers
Correction of the priority number of US20080021851: US2006-492395 => US2006-492355

24.4  The patent family definitions of the database producers
The database producers use a number of different definitions of a patent family. This definition determines what goes into one database document. In DWPI and CAPLUS there may be more than one database record for the same invention. These documents contain an information on other documents of the family being available in the database. These complex families may be assembled using a family search or family display.

24.4.1  INPADOCDB and INPAFAMDB

24.4.1.1  Database structure
INPADOCDB and INPAFAMDB are the patent databases with the widest country coverage. The data of 95 patent organizations (including EP und WO) are covered.

One document in INPADOCDB includes all publications which are based on one national application. This includes the bibliographical details of all publication levels as well as the legal status details. Both parts of the document, the bibliography and the legal status, are updated continuously.
For every invention (patent family) a number of documents is created in INPADOCDB that corresponds to the number of applications per invention.

### Document 1

<table>
<thead>
<tr>
<th>1st publication</th>
<th>1st publication</th>
<th>1st publication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PI</strong> DE10009756 A1</td>
<td><strong>PI</strong> EP130059 A1</td>
<td><strong>PI</strong> US20010031805 A1</td>
</tr>
<tr>
<td>2nd publication</td>
<td>2nd publication</td>
<td>2nd publication</td>
</tr>
<tr>
<td><strong>PI</strong> DE10009756 B4</td>
<td><strong>PI</strong> EP130059 B1</td>
<td><strong>PI</strong> US6528560 B2</td>
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<td>Legal status</td>
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### Document 2

<table>
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<th>2nd publication</th>
<th>3rd publication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PI</strong> DE10009756 A1</td>
<td><strong>PI</strong> EP130059 A1</td>
<td><strong>PI</strong> EP130059 A1</td>
</tr>
<tr>
<td>2nd publication</td>
<td>2nd publication</td>
<td>3rd publication</td>
</tr>
<tr>
<td><strong>PI</strong> DE10009756 B4</td>
<td><strong>PI</strong> EP130059 B1</td>
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### Document N

<table>
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<tr>
<th>1st publication</th>
<th>2nd publication</th>
<th>3rd publication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PI</strong> DE10009756 A1</td>
<td><strong>PI</strong> EP130059 A1</td>
<td><strong>PI</strong> EP130059 A1</td>
</tr>
<tr>
<td>2nd publication</td>
<td>2nd publication</td>
<td>3rd publication</td>
</tr>
<tr>
<td><strong>PI</strong> DE10009756 B4</td>
<td><strong>PI</strong> EP130059 B1</td>
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</tr>
<tr>
<td>Legal status</td>
<td>Legal status</td>
<td>Legal status</td>
</tr>
</tbody>
</table>

76 million publications → 65 million documents → 42 million patent families

The database indexes in INPADOCDB relate to the respective applications. This way it is possible to search, display, and monitor the information of individual applications, publications, and legal status details. Specific update codes are available to monitor selected applications. Using family related update codes it is also possible to monitor patent families.

**24.4.1.1 Family definition in INPADOCDB**

In INPADOCDB, all publications that are directly or indirectly linked through a claimed priority belong to one patent family (the so-called INPADOC family definition). Based on this definition, a family number FN is assigned to every individual document that belongs to a patent family when the database is built and whenever the database is updated.

**Family number FN**

<table>
<thead>
<tr>
<th>Publication D1</th>
<th>Priority P1</th>
<th>Publication D2</th>
<th>Priority P2</th>
<th>Publication D3</th>
<th>Priority P2</th>
<th>Publication D4</th>
<th>Priority P2</th>
<th>Publication D5</th>
<th>Priority P3</th>
</tr>
</thead>
</table>

**24.4.1.2 Database structure of INPAFAMDB**

The INPADOCBD Family Number FN is used as the Accession Number AN of the corresponding (family) document in INPAFAMDB (AN = FN). This compilation of individual documents into patent family documents is re-performed, and checked, with every update of the database, i.e. there is only one document per patent family. This is different from e.g. DWPI or CAPLUS where a different, narrower family definition is used. In those databases it is possible that due to multiple priorities more than one (family) document exists for a given invention.

INPAFAMDB has this structure:

76 million publications → 42 million documents = patent families

All documents that belong to one patent family are assigned the same Family Number FN in INPADOCDB.

AN 20539037 INPADOCDB
FN 34427091
TI STELLEINRICHTUNG.
IN KALIPPKE, HARALD, DIPL.-ING., 7141 BENNINGEN, DE; FRANZ, MANFRED, 7257 DITZINGEN, DE; RENNIGER, ERHARD, DIPL.-ING.; MEWES, JOHANNES, DR.-ING., 7145 MARKGROENingen, DE; GERHARD, ALBERT, 7146 TAMM, DE; HAMMER, UWE, DIPL.-ING. [FH], 7141 SCHWEEPENBERG, DE
PA ROBERT BOSCH GMBH, 7000 STUTTGART, DE
PI DE 4038762 A1 19920611

164
Types of search

AN  4758957  INPADOCDB
FN  34427091
TI  CONTROL DEVICE.
PI  US 5232197 A 19930803
PA  ROBERT BOSCH GMBH
IN  KALIPPKE, HARALD; FRANZ, MANFRED; RENNINGER, ERHARD; MEIWES, JOHANNES; GERHARD, ALBERT; HAMMER, UWE

AN  23204569  INPADOCDB
FN  34427091
TI  STELLEINRICHTUNG.
PI  EP 513274 A1 19921119
PA  ROBERT BOSCH GMBH, POSTFACH 30 02 20, W-7000 STUTTGART 30
IN  KALIPPKE, HARALD, LANGE STR. 87, W-7141 BENNINGEN; FRANZ, MANFRED, DANZGER STR. 5, W-7257 DITZINGEN; RENNINGER, ERHARD, SILCHERSTR. 5, W-7145 MARKGROENINGEN; MEIWES, JOHANNES, ROSENWEG 18, W-7145 MARKGROENINGEN; GERHARD, ALBERT, URACHER WEG 1, W-7146 TAMM; HAMMER, UWE, GOERLITZERSTR. 45, W-7141 SCHWEBERDINGEN

This Family Number is the Accession Number AN of the corresponding family document in INPAFAMDB.

AN  34427091  INPAFAMDB
PF  20090115
TI  STELLEINRICHTUNG.
IN  KALIPPKE, HARALD, DE; FRANZ, MANFRED, DE; RENNINGER, ERHARD, DE; MEIWES, JOHANNES, DE; GERHARD, ALBERT, DE; HAMMER, UWE, DE
PA  BOSCH GMBH ROBERT, DE

PATENT FAMILY INFORMATION INPAFAMDB

-------- Publications --------
DE 4038762 A1 19920611 DE 1990-4038762 A 19901205
US 5232197 A 19930803 US 1992-910304 A 19920721

-------- Applications --------
DE 1990-4038762 A 19901205
WO 1991-DE893 W 19911115

2 priorities, 7 applications, 7 publications

24.4.1.2 EPO “Simple Family”

The European Patent Office also defines the so-called “EPO simple family”. This is used in Espacenet, for classification of patent documents using the CPC and for the MCD database. A “simple family” consists of all documents that share the same priority or the same combination of priorities. The INPADOC family above therefore forms 4 “simple families”:
However, a detailed analysis by the EPO of given patent documents can lead to some priorities being considered "non-active". This means that these priorities are ignored for simple patent families. This assessment may change when new facts come up, e.g. a new publication. It may be said that those priorities are "active", which define the technical contents of the "simple family". WO priorities are often non-active because they share the same technical contents with the national applications. Active and non-active priorities are marked in the documents (Y = active priority, N = non-active priority).

A "simple family" is created for WO 2007009624.
Y = active priority
N = non-active priority.

PATENT FAMILY INFORMATION
AN 35175373 INPAFAMDB

=================================
EPO simple family (SFN): 37031203
=================================

+-------- Publications --------+ +-------- Applications --------+
| DE 102005034274 A1 20070125 | DE 2005-102005034274 A 20050722 |
| JP 2009503313 T 20090129    | JP 2008-521843 T 20060708    |
| US 20080216788 A1 20080911  | US 2008-9848 A 20080122     |

+-------- Priorities --------+
| DE 2005-102005034274 A 20050722 (DEA, 20070208, Y) |
|WO 2006-EP6710 W 20060708 (WWW, 20081016, N) |

2 priorities, 4 applications, 4 publications

24.4.2  DWPI

All family members in one database document have the same priorities as the Basic Patent, the first family member that was used for indexing.

When a new priority appears this publication is the basis for a new document in the database:

- Each database document has a reference to other documents belonging to the same family in the CR (Cross Reference) field
- Complex patent families result from multiple priorities being assigned to one patent application, in particular if there are Continuations in part.

The DWPI family is well suited to find closely related family members in a big patent family which is beneficial when reviewing search results.

Different Basic Patents may be used for indexing in DWPI and CAPLUS.

24.4.3  CAPLUS

All family members in one database document have the same priorities as the Basic Patent. In case of complex patent families more than one document is created in the database for one family.

In contrast to DWPI the same patent numbers may appear in more than one database document.

Whether a new family document is created is decided based on the priorities. New family documents are created in CAPLUS when new priorities appear. A hint that there are other documents of the same family can be found in the FAN.CNT (Family Accession Number Count) field.
Other reasons to create more than one document in the database for a family are:

- Many substances that must be indexed, exceeding the limit for one document.
- From 2008-07-01 one family document is created and indexed for the oldest national priority of US, DE, GB, FR, CA, EP and a second document for the WO application (WO documents often contain more information, including more chemical structures).

## 24.5  Family searches on STN

### 24.5.1  Family display formats

In the international family databases there are specific display formats:

#### 24.5.1.1  Family documents

<table>
<thead>
<tr>
<th>Database</th>
<th>Family format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWPI</td>
<td>IBIB</td>
<td>Family information of one database document</td>
</tr>
<tr>
<td>HCAPPLUS</td>
<td>IBIB</td>
<td>Family information of one database document</td>
</tr>
<tr>
<td>INPAFAMDB</td>
<td>BRIEF</td>
<td>De-duplicated format for the full family</td>
</tr>
</tbody>
</table>

In INPAFAMDB one family document always comprises the complete family.

#### 24.5.1.2  Full families

<table>
<thead>
<tr>
<th>Datenbank</th>
<th>Family format</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWPI</td>
<td>1-IBIB</td>
<td>After the family has been searched</td>
</tr>
<tr>
<td>HCAPPLUS</td>
<td>1-IBIB</td>
<td>After the family has been searched</td>
</tr>
<tr>
<td></td>
<td>FAM, FBIB</td>
<td>Family information of all database documents relating to one invention, especially to display complex families</td>
</tr>
<tr>
<td>INPADOCDB/INPAFAMDB</td>
<td>FAM</td>
<td>All priority, application and publication numbers with association</td>
</tr>
<tr>
<td></td>
<td>CFAM</td>
<td>Simple table of all publication numbers and details</td>
</tr>
<tr>
<td></td>
<td>SFAM</td>
<td>Displays the narrow INPADOC family (EPO simple family)</td>
</tr>
<tr>
<td></td>
<td>FFAM</td>
<td>Bibliographical details and legal status of all family members</td>
</tr>
<tr>
<td></td>
<td>FFAM.PC</td>
<td>Displays the narrow INPADOC family (EPO simple family)</td>
</tr>
<tr>
<td></td>
<td>MFAM</td>
<td>FFAM format plus abstracts and citations</td>
</tr>
</tbody>
</table>

These formats are by example only. There are many more formats available in the databases (in particular in INPAFAMDB).

### 24.5.2  Searching patent families using FSEARCH / FSORT commands

The FSEARCH and FSORT commands can be used for enhanced family searching in individual databases (e.g. INPADOCDB, DWPI, HCAPPLUS) and for cross-file family searches (e.g. DWPI, HCAPPLUS). In INPAFAMDB the full family is collected in one document, so the FSEARCH and FSORT commands are not needed.

Using FSEARCH the system automatically selects publication numbers and application numbers (PN, APPS) from a previous search result and searches them in the database or databases of interest. This procedure is repeated until no more documents are found (it stops after 4 iterations but can be started again). The starting point for FSEARCH can be:

- a publication number,
- an application number,
- an E numbers list or a L number (SELECT or SmartSELECT result),
- a L number or L number list, or
- a search profile.

FSEARCH always closes with a FSORT.

FSORT sorts an answer set (L number) to family groups by the publication and application numbers found. Two records are considered to belong to the same patent family if the publication numbers, the application numbers or the priority numbers match. The resulting patent families and the appropriate answers are listed.
Both commands are free of charge. Instead of using databases with search-term pricing, it is, however, advisable to search H files (i.e. HCA, HPATENTS instead of CA, PATENTS) where search terms are not charged.

Following the FSORT procedure, the display command `D PFAM 1` allows to display only one document of each patent family. Any display format may be used together with PFAM.

FSORT can also be used to identify and/or eliminate duplicates in multi-file searches. The Patent family manager of STN Express is very useful for this purpose (see the “Multifile” search example).

An example of a family search using FSEARCH in DWPI can be found in the “Family” search example. An example using FSORT and the PFAM format can be found in the “Multifile” search example.

24.5.3 Searching patent families using the Patent Family Manager

Both in STN Express and in STNext the Patent Family Manager is available to:

- Extract the first member of each patent family in the answer set,
- Remove an element of multiple basics from CA/CAplus answer sets,
- Create a custom display format of the patent family.

Calling the Patent Family Manager Wizard in STN Express

(mouse click on the L-number link of the answer set)

Calling the Patent Family Manager in STNext
24.5.4 INPADOCDB and INPAFAMDB

24.5.4.1 Family display formats in INPADOCDB and INPAFAMDB

For all answers retrieved in a search (e.g. publication number, application number, names, etc.) the patent family can be displayed. When entering DISPLAY followed by the family format, the system automatically identifies the relevant priority number and displays the patent family. It is recommended to use the DISPLAY BROWSE (D BRO) command to make sure you will be charged only once even if there are multiple display formats involved.

```plaintext
=> S US20100046623/PN
L9 1 US 20100046623/PN
    (US20100046623/PN)
=> D BRO
:CFAM2
PATENT FAMILY INFORMATION
AN 38985104 INPAFAMDB

+-------- Publications --------+ +-------- Applications --------+
CN 101656825 A 20100224 CN 2009-10170901 A 20090818
CN 101656825 B 20120328
CN 101873489 A 20101027 CN 2010-10150205 A 20100419
EP 2244485 A2 20100127 EP 2010-3916 A 20100413
HK 1141377 A1 20121116 HK 2010-107643 A 20100810
KR 2010022447 A 20100302 KR 2009-76682 A 20090819
TW 2010026054 A 20101027 TW 2009-127811 A 20090819
US 20100046623 A1 20100225 US 2009-400736 A 20090309
US 20100046615 A1 20100225 US 2009-427440 A 20090421

+-------- Priorities --------+
US 2008-900730 P 20080819
US 2009-400736 A 20090309
US 2009-427440 A 20090421

3 priorities, 9 applications, 10 publications (2 EPO simple families)

Using FFAM all bibliographical data of the full patent family including the legal status are displayed. If only the family and legal status information of one particular country is wanted this can be displayed with the FFAM.PC format (Reduced price family display, PC being replaced by the country code of the respective country):

:FFAM.EP

MEMBER 3

AN 38985104 INPAFAMDB ED 20100225 EW 201008 UP 20110603 UW 201122
DN 60403521
TI Verfahren und System zur bewegungskompensierte
Rahmenrates-Aufwartsumsetzung fuer komprimierte und dekomprimierte
Video-Bitstrom...
TL German; English; French
IN CHEN, XUEMIN ; KELLERMAN, SHARKUS
INS CHEN XUEMIN, US; KELLERMAN SHARKUS, US
PA BROADCOM CORPORATION
PAS BROADCOM CORP, US
DT Patent
PI EP 2157791 A2 20100224 English
PIT EPA2 APPLICATION PUBLISHED WITHOUT SEARCH REPORT
DAV 20100224 unexamined printed without grant
STA PRE-GRANT PUBLICATION
DS R: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI...
XS R: AL BA RS
AI EP 2009-10189 A 20090806
ALT EPA Patent application
PRAI US 2008-900730 P 20080819 (USP, 20100225, Y)
SFAM is a display format for the “EPO simple family” (see Espacenet):

For US20100046623 there are 2 simple families:

: SFAM

PATENT FAMILY INFORMATION
AN 38985104 INPAFAMDB

==================================================
EPO simple family (SFN): 41346706
==================================================

+-------+ Publications +-------+ Applications +-------+
CN 101656825 A 20100224 CN 2009-10170901 A 20090818
CN 101656825 B 20120328
HK 1141377 A1 20121116 HK 2010-107643 A 20100810
KR 2010022447 A 20100302 KR 2009-76682 A 20090819
TW 2010026054 A 20100701 TW 2009-127871 A 20090819
US 20100046623 A1 20100225 US 2009-400736 A 20090309

+-------+ Priorities +-------+
US 2008-90075P P 20080819 (USP, 20100225, Y)
US 2009-400736 A 20090309 (USA, 20100225, Y)

==================================================
EPO simple family (SFN): 42320901
==================================================

+-------+ Publications +-------+ Applications +-------+
CN 101873489 A 20101027 CN 2010-10150205 A 20100419
EP 2244485 A2 20101027 EP 2010-3916 A 20100413
US 20100046615 A1 20100225 US 2009-427440 A 20090421

+-------+ Priorities +-------+
US 2009-427440 A 20090421 (USA, 20100304, Y)
US 2009-400736 A 20090309 (USA2, 20100225, N)
US 2008-90075P P 20080819 (USP, 20100225, N)

3 priorities, 9 applications, 10 publications (2 EPO simple families)

: END

Y – active priorities
N – non-active priorities
Types of search

At the end of the tabular family display formats, the number of priorities, applications and publications is printed (Patent Family Counts):

3 priorities, 9 applications, 10 publications (2 EPO simple families)

In INPAFAMDB, there are Search and Select fields for these “counters” that can be used to analyze the patent application policy of patent assignees:

<table>
<thead>
<tr>
<th>Family Counts</th>
<th>Search/Select Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Number Counts</td>
<td>ACNT</td>
</tr>
<tr>
<td>Priority Number Counts</td>
<td>PRCNT</td>
</tr>
<tr>
<td>EPO Simple Family Number Counts</td>
<td>FCNT</td>
</tr>
</tbody>
</table>

=> $ (INA (S) SCHAEFFLER) / PA, PAS $
L36 2575 (INA (S) SCHAEFFLER) / PA, PAS

=> ANA 1. ACNT
L37 ANALYZE L36 1. ACNT : 15 TERMS

=> D 1.
L37 ANALYZE L36 1. ACNT : 15 TERMS

On average, Ina Schaeffler files 3.89 patent applications per individual invention.

<table>
<thead>
<tr>
<th>TERM #</th>
<th># OCC</th>
<th># DOC</th>
<th>% DOC</th>
<th>ACNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1089</td>
<td>1089</td>
<td>42.29</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>449</td>
<td>449</td>
<td>17.44</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>284</td>
<td>284</td>
<td>11.03</td>
<td>3</td>
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<tr>
<td>4</td>
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<td>208</td>
<td>8.08</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
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</tr>
<tr>
<td>6</td>
<td>163</td>
<td>163</td>
<td>6.33</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>91</td>
<td>91</td>
<td>3.53</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>54</td>
<td>54</td>
<td>2.10</td>
<td>8</td>
</tr>
<tr>
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</tr>
<tr>
<td>10</td>
<td>9</td>
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<td>0.35</td>
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</tr>
<tr>
<td>11</td>
<td>6</td>
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<td>0.23</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
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</tr>
<tr>
<td>15</td>
<td>1</td>
<td>1</td>
<td>0.04</td>
<td>21</td>
</tr>
</tbody>
</table>

******* END OF L37 *********

In INPADOCDB and INPAFAMDB it is possible to monitor patent families (see “Monitoring patents”).

24.5.4.2 Other family display formats in INPADOCDB and INPAFAMDB

INPADOCDB: The bibliographical details of the national patent families can be displayed. As these documents can be very large there is a de-duplicated display format BRIEF containing the most essential information on the national patent family:

=> D BRIEF

AN 64740525 INPADOCB FN 42001438 EDP 20110512
TI Electric lifting stator inner cavity cyclometer.
INS WENFENG XU; XIAOMING ZENG
PAS HANGZHOU FROMO ELECTROMECHANICAL TECHNOLOGY CO LTD
PI CN 102042792 A 20110504
CN 102042792 B 20111207
DT Patent
AI CN 2009-10310020 A 20091120
PRAI CN 2009-10310020 A 20091120 (CNA, 20110512, Y)
IPCI G01B0005-20 [I.A]
AB The invention relates to an electric lifting stator inner cavity cyclometer, which provides a stator inner cavity cyclometer with the advantages of convenience for operation and use and high measuring ...

INPAFAMDB: To allow a quick survey of the patent family there are non-redundant (de-duplicated) display formats. These formats merge the most essential information of each field unit. When these formats are used all field contents
Guide to STN Patent Databases

that are repeated identically within the family are displayed only once. The default format in this database is the non-redundant BRIEF format. This format displays the non-redundant bibliographical details, a selected abstract, and the family details (PI, AI, PRAI).

With the non-redundant BRIEF format only the English title is displayed. For the inventors and the patent assignee only the original names are displayed in the standardized fields, INS and PAS respectively.

=> D BRIEF

AN  AN 34427091 INPAFAMDB UPFB 20120719 UWF 201229
 TI  CONTROL UNIT.
     - CONTROL DEVICE.
 INS  KALIPPKE HARALD DIPL.ING., DE; FRANZ MANFRED, DE; RENNINGER ERHARD DIPL.
     ING., DE; MEIWES JOHANNES DR.ING., DE; GERHARD ALBERT, DE; HAMMER UWE DIPL.
     ING., DE; KALIPPKE HARALD, DE; RENNINGER ERHARD, DE; MEIWES JOHANNES, DE;
     HAMMER UWE, DE
 PAS  BOSCH GMBH ROBERT, DE
 I P C R  F02M0069-32 [I,A]; F02D0009-16 [I,A]; F02M0003-06 [N,A];
     F02M0003-07 [I,A]; F16K0031-06 [I,A]
 C P C  F02D0009-16; F02M0003-07; F02M0003-06; F16K0031-0682
 E P C  F02D0009-16; F02M0003-07; F16K0031-06F
 I C O  R02M0003:06R
 N C L  NCLM 251/129.110
     NCLS 251/129.120
 I N C L  INCLM 251/129.110
     INCLS 251/129.120
 A B  (US 5232197 A)
     PCT Number PCT/DE91/00893 Sec. 371 Date Jul. 21, 1992 Sec. 102(e) Date Jul.
     Jun. 25, 1992 A control device for the control of an opening...

PATENT FAMILY INFORMATION INPAFAMDB

+--------+ Publications +--------+ Applications +--------+
 DE 4038762 A1 19920611 DE 1990-4038762 A 19901205
 JP 3181587B B2 20010703
 US 5232197 A 19930803 US 1992-910304 A 19920721

+--------+ Priorities +--------+
 DE 1990-4038762 A 19901205
 WO 1991-DE893 W 19911115

2 priorities, 6 applications, 7 publications (1 EPO simple family)

All display fields (TI, PA, IN, etc.) and the display formats (BIB, ALL, etc.) in INPAFAMDB relate to the patent family and are not reduced:

=> D TI IN PA

TI  STELLEINRICHTUNG.
     - CONTROL UNIT.
     - DISPOSITIF DE REGLAGE.
 IN  KALIPPKE HARALD, DIPL.ING., 7141 BENNIGNEN, DE; FRANZ, MANFRED, 7257
     DITZINGEN, DE; RENNINGER, ERHARD, DIPL.ING.; MEIWES, JOHANNES, DR.ING.,
     7145 MARKGROENINGEN, DE; GERHARD, ALBERT, 7146 TAMM, DE; HAMMER, UWE;
     ...
 PA  ROBERT BOSCH GMBH, 7000 STUTTGART, DE
     - ROBERT BOSCH GMBH, POSTFACH 30 02 20, W-7000 STUTTGART 30
     - ROBERT BOSCH GMBH
     - ROBERT BOSCH GMBH, POSTFACH 10 60 50, D-7000 STUTTGART 10

In addition there are these formats:
Types of search

.F (or .M) show all family members
.H show only publications with HIT terms
.B show the earliest publication
.P show the latest publication
.U show the latest updated publication(s)

<table>
<thead>
<tr>
<th>De-duplicated family formats</th>
<th>.F complete family</th>
<th>.H publication with HIT terms</th>
<th>.B earliest publication</th>
<th>.P Latest publication</th>
<th>.U Latest updated publication(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIB</td>
<td>BIB.F</td>
<td>BIB.H</td>
<td>BIB.B</td>
<td>BIB.P</td>
<td>BIB.U</td>
</tr>
<tr>
<td>BIB</td>
<td>BIB.F</td>
<td>BIB.H</td>
<td>BIB.B</td>
<td>BIB.P</td>
<td>BIB.U</td>
</tr>
<tr>
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<td>IBIB.H</td>
<td>IBIB.B</td>
<td>IBIB.P</td>
<td>IBIB.U</td>
</tr>
<tr>
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<td>STD.F</td>
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<td>STD.B</td>
<td>STD.P</td>
<td>STD.U</td>
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<td>ALL.B</td>
<td>ALL.P</td>
<td>ALL.U</td>
</tr>
<tr>
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<td>ALLO.H</td>
<td>ALLO.B</td>
<td>ALLO.P</td>
<td>ALLO.U</td>
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<td>IALL.B</td>
<td>IALL.P</td>
<td>IALL.U</td>
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<tr>
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<td>IND.B</td>
<td>IND.P</td>
<td>IND.U</td>
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<td>IMAX.U</td>
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<td>PI.B</td>
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<td>PI.U</td>
</tr>
<tr>
<td>PIPI</td>
<td>PI.PDF.F</td>
<td>PI.PDF.H</td>
<td>PI.PDF.B</td>
<td>PI.PDF.P</td>
<td>PI.PDF.U</td>
</tr>
<tr>
<td>UPALL</td>
<td>UPALL.F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRIAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRIEF (default)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All family members: If the display fields (TI, PA, IN, etc.) are used with .F they are displayed with all information and not de-duplicated. The legal status formats, MAX (MAXO, IMAX) and BIBLS, are equivalent to the formats MAX.F (MAXO.F, IMAX.F) and BIBLS.F, respectively, i.e. the legal status LS is not de-duplicated.

Basic Patent: In INPAFAMDB the first publication of a patent family is defined as the basic patent. If there are more than one publication on the first publication date the documents are sorted by the publication country PC in descending order. Then the first publication, e.g. the WO publication, is selected as the basic publication. PN.B (PI.B) are SELECT fields.

HIT Patent: In INPAFAMDB patent families can be monitored using patent numbers. The following HIT display formats show the publication number used for the search: PI.H, TI.H, TIPI.H. SELECT HIT is available for PI.H if one of the fields in PI (PC, PN, PK, PY, PD) was searched.

Full-text links: The display format PI.PDF contains a direct link to the original document (PDF) at the European Patent Office.

24.5.5 DWPI

The Derwent World Patents Index database (WPINDEX, WPIDS, WPIX) is not quite as comprehensive as INPADOCDB/INPAFAMDB with regard to country coverage. In Derwent World Patents Index a dynamic design is implemented on the invention level, i.e. later publications of the same family are included into the same record. The first patent publication of a new patent family received at the database producer, is the Basic Patent. All additional patent publications (equivalents) in this document have the same priority (or priorities) as the Basic Patent.

The FAM format is a very compact format for the patent family, the format IBIB presents the family in a very clear format:

=> D FAM

The asterisk * marks the Basic Patent.
The family members are in chronological order.
Guide to STN Patent Databases

DE 10107314 C2 20030327 (200324) DE
KR 2003076683 A 20030926 (200410) KO
US 20040037129 A1 20040226 (200416) EN
JP 2004528664 W 20040916 (200461) JA 40
CN 1524267 A 20040825 (200477) ZH
US 6920074 B2 20050719 (200547) EN
KR 563100 B1 20060327 (200724) KO
FDT JP 2004528664 A Based on WO 2002067264 A; KR 563100 B1 Previous Publ KR 2003076683 A; KR 563100 B1 Based on WO 2002-DE486 A
PRAI DE 2001-10107314 20010216
WO 2002-DE486 20020211

>> D I B I B
L1 ANSWER 1 OF 1 WPINDEX COPYRIGHT 2009 THOMSON REUTERS on STN
ACCESION NUMBER: 2002-609022 [65] WPINDEX
DOC. NO. NON-CPI: N2002-482242 [65]
TITLE: Reading cell of e.g. DRAM semiconductor memory with closely-spaced bit lines, employs four phases of switching and read amplifier control
DERWENT CLASS: U13; U14
INVENTOR: FISCHER H; SZCZYPINSKI K
PATENT ASSIGNEE: (FISC-I) FISCHER H; (INFN-C) INFINEON TECHNOLOGIES AG; (SZCZ-I) SZCZYPINSKI K
COUNTRY COUNT: 5
PATENT INFO ABBR.: PATENT NO KIND DATE ORG LA PG MAIN IPC
------------------------------------------------------------------
WO 2002067264 A2 20020829 (200265)* DE 23[3]
DE 10107314 A1 20020905 (200267) DE
DE 10107314 C2 20030327 (200324) DE
KR 2003076683 A 20030926 (200410) KO
US 20040037129 A1 20040226 (200416) EN
JP 2004528664 W 20040916 (200461) JA 40
CN 1524267 A 20040825 (200477) ZH
US 6920074 B2 20050719 (200547) EN
KR 563100 B1 20060327 (200724) KO

The “Application details” field places the application numbers next to the publication numbers.

APPLICATION DETAILS:
PATENT NO KIND APPLICATION DATE
------------------------------------------------------------------
WO 2002067264 A2 WO 2002-DE486 20020211
DE 10107314 A1 DE 2001-10107314 20010216
DE 10107314 C2 DE 2001-10107314 20010216
CN 1524267 A CN 2002-805052 20020211
JP 2004528664 W JP 2002-566497 20020211
JP 2004528664 W WO 2002-DE486 20020211
US 20040037129 A1 US 2003-642906 20030818
US 6920074 B2 US 2003-642906 20030818
KR 563100 B1 WO 2002-DE486 20020211

"Filing details" help with the interpretation of the patent family.

FILING DETAILS:
PATENT NO KIND PATENT NO
------------------------------------------------------------------

174
With some types of family relations it is possible that there are other family members whose data are not part of the present record. In these cases the Accession Number of the respective record is available in the CR (Cross Reference) field:

=> D 1-2 AN CR FAM

The other family members may then be retrieved by these Accession Numbers in the /AN field or (better) by using the FSEARCH command (extended family search).

Once created, more data can be added to a document but it cannot be deleted.

24.5.6 Chemical Abstracts Plus

The CAPLUS database holds data of more than 60 patent organizations. The dynamic principle is followed in CAPLUS, i.e. later publications of the same patent family are added to the same record.

The family members are displayed in the PI filed in the BIB or ALL formats:

The technical content is different of in case of certain types of relations (Continuation, Continuation In Part, Division, etc.) it may be that not all family members appear in the same record in the CAPLUS database but that another or a
number of records exist belonging to the same patent family. Other reasons for a family being spread over several documents are:

- Too many substances to be indexed, so that the limit for one document is exceeded
- Since 01 July, 2008 for US, DE, GB, FR, CA, EP one family document is created and indexed for the document with the oldest priority and a second document for the WO publication (WO documents often contain more information, including more chemical structures)

If this is the case, i.e. there are more records to the same family, the number in the FAN.CNT (Family accession number count) field is greater than 1. It is possible that by adding new family members documents in CAplus are re-sorted, too.

There are two ways to get these family members displayed:

- Retrieving them by using FSEARCH (always use HCAplus) and DISPLAY BIB or ALL, etc.:

  ```
  => FSEARCH US2004019248/PN
  => D 1-2
  ```

- Using the special family formats FAM, FBIB, and MAX.

In this case the full patent family and additional information on the ‘intertwining’ within the families are displayed.

```
=> S US2004019248/PN
=> D FAM
```


**Conclusion for INPADOCDB, DWPI, HCAplus**

If it is vital to obtain a fully comprehensive patent family all three family data bases should be searched. Due to the different country coverage, different definitions of what a patent family is, different timeliness of patent publications being entered into the databases and different time coverage of the databases the publications considered members of a given patent family varies in the three databases.

**Non-conventional patent families**

A non-conventional patent family combines applications that have the same or similar technical content but do not refer to each other because there is no priority (no Paris Convention membership) or the priority is not claimed. The applicant/patent assignee and inventors are the same.

Owing to patent strategy considerations, two very similar applications are sometimes filed on the same day. While the description and figures are the same there may be e.g. different claims that aim at protecting different aspects of the same basic invention.

To specifically find these non-conventional families which are not linked by common priorities it may be useful to search for applications by the same applicant of the same day.

Two A1 publications of the same day, but with different priorities – the documents belong to two different national families.
Whether the contents of both documents are actually the same needs to be thoroughly examined. At least the similar application should be found.

24.6.1 Non-conventional patent families in the databases

Non-conventional patent families (priorities not claimed) are merged in some of the databases. In order to facilitate this merging, technical priorities are introduced and identified accordingly.

<table>
<thead>
<tr>
<th>Database</th>
<th>Patent authority coverage</th>
<th>Year coverage</th>
<th>How to identify non-conventional family members</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAplus</td>
<td>63 authorities</td>
<td>Publication kind code T0- from 2006</td>
<td>Code T0 in the PRAI and PI fields, display format: FBIB</td>
</tr>
<tr>
<td>DWPI</td>
<td>53 authorities</td>
<td>From 1969</td>
<td>Hash sign # in the PI field</td>
</tr>
<tr>
<td>INPADOC</td>
<td>&gt;100 authorities</td>
<td>Many years, even old documents</td>
<td>Priority Information Type in the PRAI and PRAIT fields, e.g.: CAAT Technical priority</td>
</tr>
</tbody>
</table>

WPINDEX: Intellectual merger

- >290,000 non-conventional patent families, ~200 added with every update
- The database producer systematically looks at national filings of non-residents in publications for which no foreign priority data are available
- Equivalency to an existing DWPI family requires comparisons of: inventor names, countries of residence, subject matter, drawings, diagrams
- Verification of a match results in the assignment of the non-convention equivalent to an existing DWPI family, identified by a hash sign (#). The application information (number, date) is entered in the priority field.
- Non-conventional equivalents are searchable in the /PT (Patent Type) field:
  => S US/PC (P) EQUIVALENTNONCONVENTION/PT

Example: no priority given on the publications

AN 2017-80696E [201780] WPINDEX
TI High strength nickel-based superalloy for use as high-temperature members, has chemical composition that includes carbon, iron, chromium, cobalt, molybdenum, tungsten, titanium, aluminum, and niobium in specified amounts
PA (NIKL-C) JAPAN STEEL WORKS LTD
PI EP 3249063 A1 201711129 [201780]* EN 14[3]
US 20170342525 A1 20171130 [201781]* EN 14[3]<2-
PRAI EP 2016-171670 20160527
US 2016-15165570 20160526
**Types of search**

**CA:** Adoption of technical priorities from INPADOC with labelling, further intellectual mergers

- Non-conventional patent families can be displayed in the FBIB format.
- If a technical priority has been introduced this is indicated by a T0 in the priority field.
- Some non-conventional family members are also labelled by a T0 in the publication field.
- Example: no priority given on the publications, a technical priority has been introduced in the PRAI field and is indicated by T0

```
AN   2013:1665  HCAPLUS
TI   Method system and device for providing customized point of care testing
PA   HCL Technologies Limited, India
PPPI
PATENT NO. KIND DATE LANGUAGE Patent Pak
--------------- --------- --------------- --------------
IN 2012CH04676 A  20121228  English    PDF
US 20140320807 A1 20141030  English    PDF
PI
PATENT NO. KIND DATE APPLICATION NO. DATE
--------------- --------- -------------- --------------
IN 2012CH04676 A  20121228   IN 2012-CH4676 20121107 <-
US 20140320807 A1 20141030   US 2013-13874470 20130430
PRAI IN 2012-CH4676 T0 20121107
```

**INPADOC:** Introduction of technical priorities with labelling

- INPADOC families are based on real priorities (claimed by applicants) and EPO technical priorities.
- If the applicant has not claimed a priority patent family members will receive technical priorities (false first filings).
- Intellectual family relations through technical priorities are mainly established for the PCT minimum documentation.
- In INPADOC technical priorities are shown in the priority field (PRAI, PRAIT) and are searchable:

```
=> S USAT/PRAIT
```

**Example:** assigned technical US priority

```
TI   USE OF ADRAFINIL TO TREAT BEHAVIORAL PROBLEMS IN AGED CANINES.
UTILISATION DE L’ADRAFINIL POUR TRAITER LES PROBLEMES DE COMPORTEMENT CHEZ LES VIEUX CHIENS.
PA   VETOQUINOL SA, FR; SIWAK CHRISTINA TERESA, CA; ADAMS BETH ANNE, CA;
      MILGRAM WILLIAM NORTON, CA
PI   CA 2280309       A1 20010213  English
     CA 1999-2280309    A  19990813
A1T  CAA Patent application
     US 1999-2280309    A1 19990813 (CAA, 20070621, Y)
     US 1999-374736     A  19990813 (USAT, 20070621, Y)
PRAI CAA Patent application
     USAT TECHNICAL PRIORITY
```
24.6.2 Non-conventional patent families of Chinese duplicate applications in INPADOCDB/INPAFAMDB and DWPI

From 2009 it has been possible in China to file both a patent and a utility model application for the same invention on the same day. This aims at obtaining protection quickly through the utility model and strong protection later through an examined patent. The two applications (utility model, patent) are not linked by priorities and are consequently not members of the same (conventional) patent family.

However, search reports for Chinese A publications cite the (duplicate) utility models. A special reference category, "R", is used (starting February 2010). STN uses this reference category, "R", to identify these duplicate applications. The application number of the cited utility models is entered as a "technical priority" into the priority field of the A documents:

AN 84050909 INPADOCDB ED 20160114 EW 201602 UP 20160616 UW 201624
TI Movable folding stereoscopic parking lot.
IN WANG JUN
PA WANG JUN
DT Patent
PI CN 105201247 A 20151230 English
AI CN 2015-10450717 A 20150728
AIP CNA Patent application
PR AI CN 2015-10450717 A 20150728 (CNA, 20160114, Y)
CN 2015-20554503 U 20150728 (CNU, 20151126)
PR AII CNA Patent application
CN 2015-20554503 U 20150728

=> D FAM
L7 ANSWER 1 OF 1 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN

2 priorities, 2 applications, 2 publications (2 EPO simple families)

This way, the number of Chinese patent families is lower and there is no need to read the same technical contents twice.

In DWPI, Chinese duplicate applications are joined, too. Again, they are flagged with #:
Joining these non-conventional patent families is carried out completely independently in INPADOCDB/INPAFAMDB and in DWPI.

24.7 Notes on other databases

24.7.1 IFIALL

IFIALL contains all national US publications. With every US application and every publication in the national procedure a new document is entered in this database, i.e. there may be more than one document in the database for a given application. The FI (Family Information) field contains information on all publications of the same family. The RLI (Related Applications) field holds details of other family members. Applications not claiming a foreign priority do not have data in the PRAI field. However, the PRAI field will contain details of a provisional application, if applicable. All documents belonging to one patent family can be found with FSEARCH.

In IFIALL, the “history” of a publication can be displayed in the RLI and FI fields.

FSEARCH can also be used to find all publications of a national US family in the USPATALL cluster.

The FSEARCH command can also be used to find all publications of a national US family in the USPATALL cluster.
25 Legal status search

25.1 Introduction

25.1.1 Typical legal status searches

A legal status search may be a separate search or part of a complex patent search (e.g. infringement search, freedom to operate). Two types have to be distinguished:

- Display of the legal status for given documents found in another search (e.g. number search)
- Search for legal status entries in connection with another search (name search, subject search, classification search, etc.)

Some of the databases allow only to display the legal status, but not to search for legal status entries.

25.1.2 Legal status data

Legal status data give details on a status change in the life of an IP right. They include a date, an event (plus code) and details or additional information:

PI DE 19964362 B4 20100617

20110120 DE8339 - CEASED/ NON- PAYMENT OF THE ANNUAL FEE

NIP Lapses, Expires, Withdrawals, Refusals

..............................20110120

25.1.3 Typical queries

- Search by legal or procedure status or display of the legal or procedure status:
  - Has an examination request been filed?
  - Is the application still under examination? Has it been rejected or allowed?
  - In which countries is there an active patent protection?
  - Has anyone filed an opposition or a nullity action?
    Possibly display of the opponent(s)
  - Has the opposition procedure been closed?
  - Have all annual fees been paid?
  - Has the term of protection been extended over the normal 20 years through a Supplementary Protection Certificate (SPC)?

- Search (display) of declaration of willingness to licence or licensee
- Search (display) of change of ownership
- Search (display) of lapsed patents in order to be able to use the technology (only 10% of all patent literature is actually protected)

25.2 Databases with legal status data

Legal status data are regularly entered and updated in these databases:

INPADOCDB/INPAFAMDB


Entry of PCT applications into the national phase:

Non-entry of PCT applications into the national phase: CA, DE, JP, KR
Types of search

Entry of PCT applications into the European phase

Non-entry of PCT applications into the European phase

European applications: application and grant are through the EPO, in some countries the patent offices assign national application/number/publication numbers:

Countries where national application/publication numbers are assigned:
AT, CY, DE, ES, HR, IE, SK

Note in the EP legal status “Corresponds To”, “Entry Into National Phase” or reference to payment of annual fees: AT, BE, BG, CH, CZ, CY, DE, DK, EE, ES, FI, FR, GB, GR, HK, HU, IE, IL, IT, LI, LT, LU, LV, MC, MD, NL, PL, PT, RO, RU, SE, SI, SK, TR

SPCs (Supplementary Protection Certificates): AT, DE, ES, FI, FR, IT, LT, LU, NL, SK

Extension of term (patents and utility models):
AT, AU, CH, CN, CZ, DE, DK, FI, FR, GB, HU, IE, IL, JP, LT, NL, NO, RU, SE, SK, US

The start date varies with the country; more countries are constantly added.


Legal status data in original language

PATDPA German and European patents (DE, EP), (no more updates from 7/2011)
SPCs (Supplementary Protection Certificates): DE, EP

PATDPASPC SPCs (Supplementary Protection Certificates): DE

IFICLS Legal status of US patents including Reassigned Patents, Reexamined Patents, Expired Patents, Reinstated patents, Certificates of Correction, Adverse Decision in Interference, Disclaimer/Dedication, Reexamination Request, Reissue Request

EPFULL Legal status from INPADOCDB and searchable legal status from the European Patent Register

FRANCEPAT French patents and utility models (no updates from 11/2009)
SPCs (Supplementary Protection Certificates): FR

RUSSIAPAT Publication data of earlier publications in the national patent procedure for Russian patents, entry of PCT applications into the national phase and the priority date

LITALERT Lawsuits on US Patents and US Trademarks

The INPADOCDB legal status can be displayed in other databases: AUPATFULL, CANPATFULL, CNFULL, DEFULL, DGENE, EPFULL, FRFULL, GBFULL, JPFULL, PATDPAFULL, PCTFULL, USGENE.

In all these databases, no responsibility is accepted for the correctness of the legal status information. Correct information can be obtained by inspection of the files of the respective patent office.

Still, databases with legal status information have some advantages compared to the national registers:

- Legal status information from multiple countries can be displayed in the international databases. The information can be displayed in chronological order and in compact form for the whole patent family.
- Extensive search options are available to find documents containing certain legal status information, e.g.:
  - Search for active patents of a company or in a technology field
  - Search for lapsed patents of a company or in a technology field
  - Search for patents that were opposed
  - Search for opponents of European patents (partly also AU, BR, FI, GB, NL, NO, PT)
  - Statistics of opponents
  - Search for patents offered for licensing
Guide to STN Patent Databases

- Search for SPCs
- Display of expiration dates of IP rights in 30 countries
- Monitoring of legal status events

25.3 INPADOCDB/INPAFAMDB

INPADOCDB holds legal status information of currently 61 countries (constantly being extended). The description below refers to INPADOCDB, but legal status display is done the same way in INPAFAMDB. The display formats for legal status in INPAFAMDB (LS, MAX, etc.) are all de-duplicated.

The legal status can be displayed with the formats LS or LS2 (LSUP with SDI):

```plaintext
=> D LS

LEGAL STATUS
AN 23989135 INPADOCDB
20010929 EPA PRI Patent application
  EP 2001-123512 A 20010929
20010929 EPA APP Patent application
  EP 2001-123512 A 20010929
20030402 EPA1 PUB APPLICATION PUBLISHED WITH SEARCH REPORT
  EP 1297908 A1 20030402
20030402 EPAK + DESIGNATED CONTRACTING STATES:
  AT BE CH CY DE DK ES FI FR GB IE IT LI LU MC NL PT SE TR
20030402 EPAK + DESIGNATED CONTRACTING STATES:
  EP A1
  AT BE CH CY DE DK ES FI FR GB IE IT LI LU MC NL PT SE TR
20030402 EPAK + EXTENSION OF THE EUROPEAN PATENT TO
  AL LT LV MK RO SI
20030402 EP17P + REQUEST FOR EXAMINATION FILED
  20010929
EXA Examination, Search Report
20040102 EPA + PAYMENT OF DESIGNATION FEES
  DE ES FR GB IT
20040225 EPB1 PUB PATENT SPECIFICATION
  EP 1297908 B1 20040225
20040225 EPAK + DESIGNATED CONTRACTING STATES:
  EP B1
  DE ES FR GB IT
20040225 EPREG REFERENCE TO A NATIONAL CODE
  GBF4D + GB: EUROPEAN PATENT GRANTED
  NOT ENGLISH
20040324 EPREG REFERENCE TO A NATIONAL CODE
  IEFG4D + IE: EUROPEAN PATENTS GRANTED DESIGNATING IRELAND
  GERMAN
20040401 EPREF CORRESPONDS TO:
  DE 50101564 P 20040401
20040512 EPGT + GB: TRANSLATION OF EP PATENT FILED (GB SECTION
  77(6)(A)/1977)
20040419
20040716 EPREG REFERENCE TO A NATIONAL CODE
  ESFG2A + ES: DEFINITIVE PROTECTION
  ES 2211712 T3
20040922 EPREG REFERENCE TO A NATIONAL CODE
  IEFD4D + IE: EUROPEAN PATENTS DESIGNATING IRELAND TREATED AS
  ALWAYS HAVING BEEN VOID
20041029 EPET + FR: TRANSLATION FILED
20050119 EP26 + OPPOSITION FILED
  SMS DEMAG AG
  20041124
ORE Opposition, Reexamination
```
In LSO, the legal status can be displayed in original language, e.g. DE, FR, ES NL:

In LSO, the legal status can be displayed in original language, e.g. DE, FR, ES NL:

=> D BIB LSO

AN 53298503 INPADOCDB

TI Abgabevorrichtung zur Abgabe von Wirkstofffluiden in die Spuelfluessigkeit in einem Toilettenbecken.

INS BUTTER-JENTSCH RALPH, DE; MENKE RONALD, DE; MUEHLHAUSEN HANS-GEORG, DE; PESSEL FRANK, DE; JUNGMANN THOMAS, DE; HUCHLER STEFAN, DE

PAS HENKEL KGAA, DE

PI DE 10164866 B4 20070614

...LEGAL STATUS

AN 53298503 INPADOCDB

20040923 DEQ172 AUSGESCHIEDEN ODER ABGETEILT VON (NACHTRAG): DE 10113036 P 20110811

20040930 DE8110 + EINGANG VON PRUEFUNGSANTRAEGEN PAR. 44 EXA Examination, Search Report

20070614 DE84 PUB PATENT (SECOND PUBLICATION) DE 10164866 B4 20070614

20071206 DE8364 + EINSPRUCHSFRIEST ABGELAUFEN OHNE DASS EINSPRUCH ERHOBEN WURDE

20080605 DE8310 - KLAGE AUF ERKLÄRUNG DER NICHTIGKEIT ERHOBEN

NIF Lapses, Exprires, Withdrawals, Refusals

20080724 DE8327 AENDERUNG IN PERSON, NAMEN ODER WOHNORT DES PATENTINHABERS HENKEL AG & CO. KGAA, 40589 DUESSELDORF, DE

CHG Change of Owner, Inventor, Applicant

20090108 DE8313 + ANTRAG AUF ERKENNUNG DER NICHTIGKEIT ZURUECKGEMESEN - GEZOGEN

REI Reinstatement or Restoration

When the legal status is displayed using the formats LS or LS2 (LSUP with an SDI) the respective priority, application, and publication details are displayed (not with the formats MAX, FFAM, etc.). Element Billing is used, i.e. the
Guide to STN Patent Databases

Bibliographical details are billed only if they are displayed with the legal status only. If the legal status is displayed in addition to the bibliographical details and there is no additional legal information only the BIB format will be billed.

20010929 EPA PRI Patent application EP 2001-123512 A 20010929
20010929 EPA APP Patent application EP 2001-123512 A 20010929
20030402 EPA1 PUB APPLICATION PUBLISHED WITH SEARCH REPORT EP 1297908 A1 20030402

The information is formatted like this:

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<thead>
<tr>
<th>Date</th>
<th>Code</th>
<th>Status</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>20050119</td>
<td>EP26</td>
<td>-</td>
<td>OPPOSITION FILED</td>
</tr>
<tr>
<td>20050119</td>
<td>EP270</td>
<td>20041124</td>
<td>SMS DEMAG AG</td>
</tr>
<tr>
<td>20060115</td>
<td>ORE</td>
<td>OPPOSITION REJECTED</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>POSITIVE</td>
</tr>
<tr>
<td>20070222</td>
<td></td>
<td></td>
<td>POSITIVE</td>
</tr>
</tbody>
</table>

Legal status date (priority date, application date, publication date)

Legal status code

+/- For positive or negative events respectively

OPPOSIT... Legal status code text:

20060115 Legal status date in force

ORE Legal status categories, grouping all codes of a particular category

20070222 the date at the end of the last line is the date of entry into the database (since Apr. 2007, reload of INPADOCDB)

200708 Entry/update week

=> D LS2

LEGAL STATUS

AN 23989135 INPADOCDB
PRD 20010929
PRK EPA
PRAIT Patent application
PRAI EP 2001-123512 A 20010929 PRI

AN 23989135 INPADOCDB
AD 20010929
AK EPA
AIT Patent application
AI EP 2001-123512 A 20010929 APP

... AN 23989135 INPADOCDB UPLS 20110407 EWLS 201114
LSD 20110331
LSC EPPGF
LSCL +
LSTX POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE
LSPMY Payment Year: 10
LSCH IT
LSDF 20100929

The family formats, FFAM, LFAM and IFAM, include the legal status, too.

In the INPAFAMDB database all legal status details of a complete patent family can be displayed in chronological order.

On the server of the European Patent Office (http://www.epo.org/searching/data/data/tables.html) there are tables available detailing:

- Contents and coverage of the INPADOC legal status file
- Classification of recently used PRS codes
- Description of legal status codes: AU, DE, EP, GB, NZ, US
Types of search

A table containing all legal status codes in original language is available on:

- http://documents.epo.org/projects/babylon/rawdata.nsf/0/8A0E71AB90C1C4A6C12579EC002E26D0/$File/le-codes-or1217.txt

There are a number of search fields available. EXPAND is recommended to browse the codes and code description text:

```plaintext
=> E EP/LSC
   ...
   E4  254  EP110E/LSC
   E5  254  EP110E REQUEST FOR CONVERSION/LSC
   E6  1634 EP111L/LSC
   E7  1634 EP111L LICENSES/LSC
   E8  1200 EP111Z/LSC
   E9  1200 EP111Z LEGAL MEANS OF EXECUTION/LSC
   E10 1068 EP16A/LSC
   E11 1068 EP16A NEW DOCUMENTS DISCOVERED AFTER COMPLETION OF TH/LSC
   E12  3  EP17A/LSC
   ...

=> E OPPOSITION/LSTX
   E1  1  OPPONENT/LSTX
   E2  104  OPPOS/LSTX
   E3 1865062  OPPOSITION/LSTX
   E4  97  OPPOSITIONS/LSTX
   E5  1  OPPOSITION/LSTX
   ...
```

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<th>DISPLAY header in format LS2</th>
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<td>EWLS</td>
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<td>Legal Status Entry Week (INPADOC-Woche)</td>
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<td></td>
<td>EDLS</td>
<td>EDLS</td>
<td>Legal Status Entry Date (ED + UPLS)</td>
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<td>Legal Status Code Category</td>
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<td></td>
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<td>LSTX *)</td>
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<tr>
<td></td>
<td>LSD</td>
<td>LSD</td>
<td>Legal Status Date INPADOC GAZETTE</td>
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<td>LSCI</td>
<td>LSCI</td>
<td>Legal Status Indicator (negative/positive)</td>
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<td>Legal Status Date in Force</td>
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<td>LSFT</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>LSIN</td>
<td>LSIN</td>
<td>Legal Status Patent Inventor</td>
</tr>
<tr>
<td></td>
<td>LSOP</td>
<td>LSOP</td>
<td>Legal Status Patent Opponent</td>
</tr>
<tr>
<td></td>
<td>LSPA</td>
<td>LSPA</td>
<td>Legal Status Patent Assignee</td>
</tr>
<tr>
<td></td>
<td>LSSPC</td>
<td>LSSPC</td>
<td>Legal Status SPC Number</td>
</tr>
<tr>
<td></td>
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<td>LSSPC.EX</td>
<td>Legal Status SPC: Extension Date</td>
</tr>
<tr>
<td></td>
<td>LSSPC.FD</td>
<td>LSSPC.FD</td>
<td>Legal Status SPC: Filing Date</td>
</tr>
<tr>
<td></td>
<td>LSSPC.XD</td>
<td>LSSPC.XD</td>
<td>Legal Status SPC: Expiry Date</td>
</tr>
<tr>
<td></td>
<td>LSIC</td>
<td>LSIC</td>
<td>Legal Status IPC</td>
</tr>
</tbody>
</table>

*LSTX contains only the description of LSC

**Note:** The fields are filled only if the respective data are provided by the patent office, e.g. the fields LSSPC.EX, LSSPC.FD, LSSPC.XD are not available for German SPCs.
Guide to STN Patent Databases

25.3.1 Notes on /UPLS and /EDLS

The /UPLS field indicates when a certain event was entered in the legal status field (from April 2007).

For monitoring certain important events in patent procedures it was necessary to introduce a new update field, /EDLS. This field indicates both changes in the bibliographic levels (/ED) and in the legal status data (/UPLS):

\[
\text{EDLS} := \text{ED} + \text{UPLS}
\]

It is planned to include certain publication information (e.g. grant) in the legal status again.

25.3.2 Notes on /LSFT and /LSBI

A field /LSFT (Legal Status Free Text) was introduced, because in the back-file in some cases the legal status information was not assigned to a specific field, e.g. /LSPA. To get all information the search should be made in /LSFT + /LSPA, /LSIN, /LSOP, /LSAG or even in /LSBI (Legal Status Basic Index):

\[
\text{LSBI} := \text{LSAG}, \text{LSFT}, \text{LSIN}, \text{LSOP}, \text{LSPA}
\]

25.3.3 Search in the legal status fields

The information in the legal status fields is word indexed. (W) is used as implied proximity; the other proximity operators may also be used in these fields (LSTX contains only the description for LSC). The Boolean operators include all legal status information in LS and/or LS2. To link two terms from the same entry (L) proximity should be used:

\[
\Rightarrow \ S \ \text{DEOP8}/\text{LSC(L)}/20110526/\text{UPLS} \\
\text{471360\ DEOP8}/\text{LSC} \\
\text{77012\ 20110526}/\text{UPLS} \\
\text{20110526}/\text{UPLS}
\]

\[
\Rightarrow \ D\ \text{HIT}
\]

\[
\text{L4\ ANSWER\ 1\ OF\ 403\ INPADOCDB\ COPYRIGHT\ 2011\ EPO/FIZ\ KA\ on\ STN}
\]

\[
\text{LEGAL\ STATUS\ HIT}
\]

\[
\text{AN\ 64918509\ INPADOCDB} \\
\text{20110526\ DEOP8 \ +\ REQUEST\ FOR\ EXAMINATION\ AS\ TO\ PARAGRAPH\ 44\ PATENT\ LAW} \\
\text{EXA\ Examination,\ Search\ Report} \\
\text{...............................................20110526}
\]

UPLS is also range searchable:

\[
\Rightarrow\ S\ \text{EPPG25}/\text{LSC\ (L)}\ 20110101-20110215/\text{UPLS} \\
\text{896976\ EPPG25}/\text{LSC} \\
\text{689967\ 20110101-20110215}/\text{UPLS} \\
\text{20110101-20110215}/\text{UPLS}
\]

With DISPLAY HIT only those legal status entries will be displayed which were entered or updated during the period specified:

\[
\Rightarrow\ D\ \text{HIT 1 60000}
\]

\[
\text{L5\ ANSWER\ 1\ OF\ 66822\ INPADOCDB\ COPYRIGHT\ 2011\ EPO/FIZ\ KA\ on\ STN}
\]

\[
\text{LEGAL\ STATUS\ HIT}
\]

\[
\text{AN\ 63724922\ INPADOCDB} \\
\text{20041110\ EPPG25 \ +\ LAPSED\ IN\ A\ CONTRACTING\ STATE\ ANNOUNCED\ VIA\ POSTGRANT} \\
\text{INFORM\ FROM\ NAT.\ OFFICE\ TO\ EPO} \\
\text{LAPSE\ BECAUSE\ OF\ FAILURE\ TO\ SUBMIT\ A\ TRANSLATION\ OF\ THE} \\
\text{DESCRIPTION\ OR\ TO\ PAY\ THE\ FEE\ WITHIN\ THE\ PRESCRIBED} \\
\text{TIME-LIMIT} \\
\text{AT: 20041110} \\
\text{NLF\ Lapses,\ Expiries,\ Withdrawals,\ Refusals} \\
\text{...............................................20110203}
\]

\[
\text{L5\ ANSWER\ 60000\ OF\ 66822\ INPADOCDB\ COPYRIGHT\ 2011\ EPO/FIZ\ KA\ on\ STN}
\]

\[
\text{LEGAL\ STATUS\ HIT}
\]

\[
190
\]
Types of search

AN 23406431 INPADOCDB
20101231 EPPG25 - LAPPED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES GB: 20091127
NIF Lapses, Expiries, Withdrawals, Refusals ...........................................20110107

When searching in the LSTX field (S) proximity should be used to link the search terms:

=> S BAYER/PA, PAS AND (EXPIR?(S)FAIL?)/LSTX
   199972 BAYER/PA
   202142 BAYER/PAS
   1890718 EXPIR?/LSTX
   1103205 FAIL?/LSTX
   919716 (EXPIR?(S)FAIL?)/LSTX
L2 5417 BAYER/PA, PAS AND (EXPIR?(S)FAIL?)/LSTX

=> D HIT 2

L6 ANSWER 2 OF 6510 INPADOCDB COPYRIGHT 2011 EPO/FIZ KA on STN
PA BAYER AKTIENGESELLSCHAFT
PAS BAYER AG, DE

LEGAL STATUS HIT
AN 52840545 INPADOCDB
20110503 USFP - EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE 20110313
NIF Lapses, Expiries, Withdrawals, Refusals ...........................................20110505

Note: The INPADOCDB database was reloaded in spring 2007. All documents existing in the database at that time have the same (or a similar) entry date (e.g. Entry Date field). If you want to link legal status information from that time (or before) with a date do not use the database entry/update date (e.g. Entry Date /ED) but rather a date from the document (e.g. Publication Date /PD).

25.3.3.1 Legal status categories

With over 2,600 legal status codes, legal status searches using these codes can be a challenge even for an experienced searcher. The codes vary between patent offices and even the description text may change over time. Therefore, to successfully complete a comprehensive search a detailed knowledge of the various patent examination procedures is indispensable.

In order to better help searchers legal status categories were introduced that group all codes on a particular theme. These seven category codes cover the most needed fields.

The category codes are searched in the /LSC2 search field:

- CHG Change of Owner, Inventor, Applicant
- EXA Examination, Search Report
- LIC Licensing
- NIF Lapses, Expiries, Withdrawals, Refusals
- ORE Opposition, Reexamination
- REI Reinstatement or Restoration
- SPC Supplementary Protection Certificate, Time Extension

=> S SYNGENTA/PA, PAS AND NIF/LSC2
   11409 SYNGENTA/PA
   11430 SYNGENTA/PAS
   11816835 NIF/LSC2
L7 2893 SYNGENTA/PA, PAS AND NIF/LSC

=> D PI LS
The advantage of the legal status categories lies in the easy access to specific legal status information. They are:

- Reliable and easy to use,
- Well suited for specific needs of legal status monitoring,
- Current, as new codes and code definitions are constantly updated.

Anyway, note that the legal status categories are no more than a convenient summary of existing legal status code entries. Always consider these additional notes (see also the “Monitoring” search example):

- NIF in EP or WO applications does not mean that all Designated States are concerned
- Lapse of a patent or application (denoted by NIF) can be reversed by a later event (e.g. reinstatement or Supplementary Protection Certificate, SPC)
- ORE does not include NO OPPOSITION
- SPC not only covers Supplementary Protection Certificates but also all other extensions of the term of an IP right (including e.g. renewal of utility models)

### 25.3.4 Calculated expiration dates

To identify active or expired patents the expiration dates of granted patents of important patent offices (from 30 countries) from 1980 are calculated and displayed: AR, AT, AU, BE, BR, CA, CH, CN, DE, DK, EP, ES, FI, FR, GB, HK, HU, IE, IL, IT, JP, KR, MX, NL, PL, RU, SE, SU, TW, US, ZA

This information is typically not available from the legal status as most patents do not expire at the end of their theoretical term but, for a variety of reasons, at an earlier time (average effective term: 12 years).

For the calculation of the expiration dates it is not enough to consider the usual 20-year patent term but approximately 400 rules must be considered for the 30 countries, in particular:
Types of search

- Patent laws and changes to patent laws for all granted patent rights since 1980
  (patents, utility models, design patents, plant patents, all publication types, such as short term patents, re-examination, reissue, etc.)
- Determination of the first effective application date
  (the first priority date in a chain of priority dates, important in particular for Divisional Patents and Continuations-in-Part)

The calculation is based on the bibliographical details in INPADOC (publication, application and priority dates). Data that are not taken into account:

- Patent Term Adjustments (PTA), e.g. for US patents
- Expiration dates from the legal status data in INPADOC (e.g. expired for non-payment of maintenance fees)
- Calculated expiration dates of SPC (Supplementary Protection Certificates)

For searching the fields XPD (Expiration Date) and XPY (Expiration Year) are available:

```
=> S 20130120/XPD
=> S 20140601-2015-0601/XPD
=> S XPD>20140101
=> S 2014-2017/XPD

=> S C12N0015-79+NT/IPC,CPC AND XPD>20140101
L2 45789 C12N0015-79+NT/IPC,CPC AND XPD>20140101 => d l2 std 40
```

In EPFULL current legal status data from INPADOCDB are added. This way the data available include data after granting and the entry into the national phase. The legal status data can be displayed by LS and LS2 as in INPADOCDB but they are not searchable.

In addition searchable legal status information from the European Bulletin is added to the database: this information can be displayed with the LSEP field. With the LSEPR display field a PDF link to the European Patent Register (updated daily, some additional information) is additionally displayed. Once displayed, the link will be accessible in the session transcript for 90 days and will present the data at the time when the command was initiated. For updating, display LSEPR needs to be used again.

25.4 EPFULL

In EPFULL current legal status data from INPADOCDB are added. This way the data available include data after granting and the entry into the national phase. The legal status data can be displayed by LS and LS2 as in INPADOCDB but they are not searchable.

In addition searchable legal status information from the European Bulletin is added to the database: this information can be displayed with the LSEP field. With the LSEPR display field a PDF link to the European Patent Register (updated daily, some additional information) is additionally displayed. Once displayed, the link will be accessible in the session transcript for 90 days and will present the data at the time when the command was initiated. For updating, display LSEPR needs to be used again.
To find out what licenses an institution has granted one could use this search strategy:

=> S (EIDGENOESSISCHES TECHNISCHE HOCHSCHULE ZURICH)/PA AND EPB790/LSC
L1 5 (EIDGENOESSISCHES TECHNISCHE HOCHSCHULE ZURICH)/PA AND EPB790/LSC

=> D TI PA AG PI DS AI PRAI LSEP
L1 ANSWER 1 OF 5 EPFULL COPYRIGHT 2011 EPO/FIZ KA/LNU on STN
TIFR Scaffolds for artificial heart valves and vascular structures.
TIDE Geruest fuer kuenstliche Herzklappenprothese und Gefaess-Strukturen.
PA Eidgenoessische Technische Hochschule Zuerich, Raemistrasse 101, 8092 Zuerich, CH
AG Schaad, Balass, Menzl & Partner AG, Dufourstrasse 101 Postfach, 8034 Zuerich, CH
PI EP 1864687 A1 20071212
DS AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
AI EP 2006-11911 A 20060609
PRAI EP 2006-11911 A 20060609 *

LEGAL STATUS INCLUDING HISTORY
AN 2006:172417 EPFULL
20071212 EPB430 Unexamined document without grant, (first publication) 20071212

20071212 EPB840 Designated contracting states
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
EP 1864687 A1 20071212

20071212 EPB844EP Extension of the European patent to
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<th>Description</th>
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<td>Request for examination</td>
<td>20080609</td>
</tr>
<tr>
<td>20080725</td>
<td>Dispatch of the first exam</td>
<td>20080710</td>
</tr>
<tr>
<td></td>
<td>ination report</td>
<td></td>
</tr>
<tr>
<td>20080813</td>
<td>Payment of designation fees</td>
<td>AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU</td>
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<td></td>
<td></td>
<td>I L S I T LI LT LU LV MC NL PL PT RO SE SI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SK TR</td>
</tr>
<tr>
<td>20080820</td>
<td>Payment of extension fees</td>
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<tr>
<td>20090603</td>
<td>License</td>
<td>20090330</td>
</tr>
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<td></td>
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<td></td>
</tr>
<tr>
<td>20090603</td>
<td>Divisional application</td>
<td>20090603</td>
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<td></td>
<td>(correction)</td>
<td></td>
</tr>
<tr>
<td>20101209</td>
<td>NEW: EP 2010-15465</td>
<td>20101209</td>
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<tr>
<td>20101209</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20110126</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
26 Crossover between databases

26.1 Crossover using L numbers or E numbers, TRANSFER

The familiar crossover options using L or E numbers can also be used between patent databases. In addition to possibly varying field designations and field contents, these points should be considered:

- Varying languages,
- Varying options for free-text searching,
- Varying index forms, particularly in the name fields.

When searching patent databases a search result often has to be transferred between databases, for example in order to compare two search results or to find additional information. For this transfer, a unique identification for a patent document is necessary. This may be a patent number, application number, or, in some cases, the accession number. The transfer can be made using SELECT (creating an E# list) or TRANSFER (creating an L number). For example, to obtain the full text of European publications in EUROPATFULL for a search result from DWPI, this strategy could be employed:

```plaintext
=> FIL WPIINDEX
=> S SONOPRESS/PA
  L1  27 SONOPRESS/PA
=> FIL EPFULL
=> TRANSFER L1 1- PN
  L2  TRANSFER L1 1- PN : 111 TERMS
  L3  19 L2
=> D 1- ALL
```

Before using SELECT or TRANSFER, the search costs should be taken into account:

- SELECT (E#): varying costs per processed document, depending on the type of the selected data
- TRANSFER (L#): fixed price per use

When crossing over from DPCI to DWPI (WPIINDEX, WPIDS, WPIX), SELECT or TRANSFER are not necessary. A simple search command is sufficient:

```plaintext
=> FIL DPCI
=> S JENOPTIK/PA.D
  L5  1999 JENOPTIK/PA.D
=> FIL WPIIND
=> S L5
  L6  1999 L5
```

Note on Chemical Abstracts. When using SELECT or TRANSFER the databases without SEARCH term charges should be used (HCA, HCAPLUS).

26.2 Simultaneous search in multiple databases (Multi-file SEARCH)

As the contents and search options in the databases vary considerably one will choose a suitable database to obtain a good result once the search criteria have been clarified (see “Overview of search options” and “Using STN databases to conduct a patent search”). After the first search it may be helpful to consult a second or third database in order to complete the search results.

In some cases it may be useful to perform a multi-file search in a number of databases.

There are a number of search types where a multi-file SEARCH can be particularly useful:

- Search by number (publication number, reference number)
- Search by the International Patent Classification
Types of search

- Parallel free-text searching in more than one database (mono- or multilingual)
- SDI searches in DWPI and WPIFV
- Name searches using EXPAND lists
- Text searches or SDI searches for all patent documents relevant to Germany in the PATDPAFULL, EFPULL, and PCTFULL databases.

After a multi-file search, the documents retrieved should be sorted into family groups by using the FSORT command. This allows for documents of the same patent family being easily identified and, if necessary, eliminated.

26.3 Identifying duplicates

The DUPLICATE command can be used in multi-file searches in order to identify and, if necessary, eliminate duplicates. This function can be used in all the databases dealt with in this guide.

In order to identify duplicates the DUPLICATE command uses the publication country, document number, and publication date.

In most cases duplicates can be detected, except for the following cases:

- **Chemical Abstracts:** The DUPLICATE command uses only the data of the first line of the PI field. Documents entered as *Equivalent* in the Chemical Abstracts will not be found as duplicates.
- **INPADOCDB/INPAFAMDB:** The DUPLICATE command uses only the data from the PI field of the first publication. The other publications are not used.
- **PATDPA:** Of the PI field only the first line (latest publication) is used. The other (earlier) publication levels are not considered.
- **World Patents Index:** The DUPLICATE command uses only the data of the Basic. Thus, documents only entered as *Equivalent* in the World Patents Index will not be detected as duplicates.
- **DPCI:** The DUPLICATE command cannot be used.

Generally it is, however, preferable to use the FSORT command together with DPFAM instead of the DUPLICATE command if only one member of the patent family is to be displayed.

As INPADOCDB has standardised and current priority numbers it is advisable to include INPADOCDB in an FSORT command for a more complete duplicate and family identification; see “Multi-file” search example, “Full-text databases”.

26.4 Crossover using the OS field

<table>
<thead>
<tr>
<th>Field</th>
<th>From database</th>
<th>To database</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>CA</td>
<td>CASREACT, MARPAT</td>
</tr>
<tr>
<td></td>
<td>USPATFULL/USPAT2</td>
<td>CA</td>
</tr>
<tr>
<td></td>
<td>USPATOLD</td>
<td>CA</td>
</tr>
<tr>
<td></td>
<td>DGENE</td>
<td>DWPI</td>
</tr>
<tr>
<td></td>
<td>ENCOMPPAT</td>
<td>DWPI</td>
</tr>
<tr>
<td></td>
<td>IFIALL</td>
<td>CA</td>
</tr>
<tr>
<td></td>
<td>PATDPA</td>
<td>CA</td>
</tr>
</tbody>
</table>

In the OS field usually the name and Accession Number of the other database are specified and may be used to retrieve the corresponding document in that database. Crossover to the other database is carried out with the help of SELECT: (Illustrated here by a search example from PATDPA.)

```plaintext
=> SEL 1. OS
  E1 THROUGH E4 ASSIGNED

=> D SEL
  E1 3 CA/OS
  E2 1 87:134706/OS
  E3 1 92:286211/OS
  E4 1 98:215458/OS
```
Guide to STN Patent Databases

$=>$ F I L H C A
$=>$ S E 2 - 4 / A N

1 "87:134706" / A N
1 "92:28621" / A N
1 "98:215483" / A N
L14 3 ({"87:134706" / A N OR "92:28621" / A N OR "98:215483" / A N}
Types of search

27 Display of patent images and full-text images

27.1 Image data in patent databases

Patent databases containing images: AUPATFULL, CANPATFULL, CNFULL, DWPI, FRANCEPAT, FRFULL, GBFULL, EPFULL, INFULL, JAPIO, KOREAPAT, PATDPA, PATDPAFULL, PCTFULL, RDISCLOSURE, RUSSIAPAT.

All databases have an entry “GI” in the Field Availability (FA) field if a record includes a patent image:

```latex
=> S L1 AND GI / FA
```

The Graphics Information Size /GIS field holds the image size:

```latex
=> D 1-3 GIS
```

The images are displayed with the GI field or as part of a predefined display format (BIB.G, MAXG, etc.).

Patent images are stored in these formats:

<table>
<thead>
<tr>
<th>Image Format</th>
<th>File Extension</th>
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<tbody>
<tr>
<td>TIFF</td>
<td>.tiff</td>
</tr>
<tr>
<td>JPEG</td>
<td>.jpg</td>
</tr>
<tr>
<td>GIF</td>
<td>.gif</td>
</tr>
<tr>
<td>Structure Image</td>
<td>.gra</td>
</tr>
</tbody>
</table>

The images can be transferred using STN Express or STN on the Web. The images are displayed in the document context. When using STN Express the images may also be displayed in a separate window using the TIFF Viewer. With STN Express, version 8.4 or later, the images are transferred faster than with previous versions. With STN on the Web the transcript files with images should be saved as RTF (Rich Text Format).

27.2 CA/CAPLUS

The TIFF or GIF images of the scanned pages from the printed Chemical Abstracts of the years 1907–1966 can be displayed in CAPLUS. The DISPLAY formats are: PAGE, PAGE.NEXT, and PAGE.PREV. It is a good idea to use STN Express or STN on the WEB.

**PatentPak:** With PatentPak it is possible to quickly find and display chemical structures in patent full texts and to quickly display the PDF documents of important patent offices through links provided in the CA/CAPLUS database.

- **PatentPak PDF** – links to more than 9 million original PDFs from the PatentPak Library (collection of PDF documents of important patent offices)
- **PatentPak PDF+** – PDF document plus display of a table containing the chemical structures information from the patent document
- **PatentPak Interactive** – an interactive version of the PDF document including highlighting of the location in the document where the indexed substance appears

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<th>HCAPLUS</th>
<th>COPYRIGHT 2016 ACS on STN</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN</td>
<td>2016:627148</td>
<td>HCAPLUS</td>
<td></td>
</tr>
<tr>
<td>DN</td>
<td>164:508626</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED</td>
<td>Entered STN: 21 Apr 2016</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI</td>
<td>Production of rubber compositions containing silica fillers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IN</td>
<td>Taniguchi, Sho</td>
<td></td>
<td></td>
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<tr>
<td>PA</td>
<td>TOYO Tire &amp; Rubber Co., Ltd., Japan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CODEN</td>
<td>GWXXBX</td>
<td></td>
<td></td>
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<tr>
<td>DT</td>
<td>Patent</td>
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<tr>
<td>LA</td>
<td>German</td>
<td></td>
<td></td>
</tr>
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<td>CC</td>
<td>39-9 (Synthetic Elastomers and Natural Rubber)</td>
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<table>
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<th>PPPI</th>
<th>PATENT NO.</th>
<th>KIND</th>
<th>DATE</th>
<th>LANGUAGE</th>
<th>PATENTPAK</th>
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<tbody>
<tr>
<td>DE</td>
<td>102015220215</td>
<td>A1</td>
<td>20160421</td>
<td>German</td>
<td>PDF</td>
</tr>
</tbody>
</table>
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JP 2016079287        A    20160516  Japanese  PDF
US 20160115305       A1   20160428  English  PDF
CN 105524314         A    20160427  Chinese  PDF

PI

PATENT NO. KIND DATE APPLICATION NO. DATE
--------------- ------- ---- --------------------- -------
DE 102015220215 A1  20160421 DE 2015-102015220215 20151016
JP 2016079287 A    20160516 JP 2014-211930 20141016
US 20160115305 A1   20160428 US 2015-14877371 20151007
CN 105524314 A    20160427 CN 2015-10666931 20151015

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB  Silica filled rubber vulcanizates are manufactured for tires with improved grip on wet pavement. The rubber composition contains 100 parts of rubber component, 20-150 parts SiO2, and 1-10 parts polymer gel based on

IT  9003·17-2
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(butadiene rubber, unmodified; production of compns. containing silica fillers, modified and unmodified diene rubbers and polymer gels for tires with improved grip on wet pavement)

IT  7631·06-9, Nipsil AQ, uses
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(product of compns. containing silica fillers, modified and unmodified diene rubbers and polymer gels for tires with improved grip on wet pavement)

IT  9003·55-8
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(styrene-butadiene rubber, SBR 1502; production of compns. containing silica fillers, modified and unmodified diene rubbers and polymer gels for tires with improved grip on wet pavement)

PPAK  9003·17-2, PG 1
7631·06-9, NIPSIL AQ, PG 7
9003·55-8, PG 7
27.3 DWPI

The DWPI database contains patent images (technical and chemical structure drawings):

- Engineering: from Derwent week (DW) 8801
- Chemistry: from Derwent week (DW) 9201

Generally, a record holds no more than one patent image. It is, however, not necessarily the drawing from the title page of the patent document. Sometimes, however, there may be more than one patent image.

Images in DWPI are scanned at 300 dpi. Images are displayed in the GI or GI.M display fields.

Additionally, there is a number of display formats that include images and where the image is displayed at invention level: e.g. ALLG, BRIEFG, FULLG, MAXG. To obtain an image and its respective Member at publication level the MEMBG or MEMBFG formats can be used.

27.4 RDISCLOSURE

In RDISCLOSURE the full text is searchable, it can be displayed as ASCII text without images (ALL format) or as page images, including drawings, using one of these formats:

- TIFF -- DISPLAY ALL (STN Express or STN on the Web)
- PDF -- DOWNLOAD PDF (STN Express only)

```
=> FIL RDISCLOSURE
=> S ?MICROCONTROLLER?
L1 71 ?MICROCONTROLLER?

=> DOWNLOAD L1 1-2 PDF
ENTER HIGHLIGHT or NOHIGHLIGHT: NO
VALID DOWNLOAD OPTIONS ARE 'PDF', 'CAPT'
ENTER DOWNLOAD OPTIONS PDF: .
CREATE (SINGLE) OR MULTIPLE FILES: MUL
ENTER FILENAME OR (?): MICRO
TEXT DATA WILL BE DOWNLOADED TO 'MICRONnn.PDF' USING 'PDF'
START DOWNLOAD (Y)?:
```

Options:

- PDF: Save as .pdf
- CAPT: Save together with .trn (can be displayed with PDF reader)
- SINGLE: Save all full texts in one file
- MULTIPLE: Save each full text in a separate file
28 Full text

28.1 Searches in full-text databases

Bibliographical databases, having meaningful titles, abstracts, and advanced indexing, are still the best sources for searching prior-art publications. Anyway, full-text databases offer a number of options to either complement the bibliographical databases or use them alone for searching by text (see “Text searches”):

Comprehensive text coverage. This may be an advantage or a drawback.

Full-text databases hold a lot of unweighted text, which will tend to increase the number of hits and at the same time decrease the relevance of the search results. To increase the relevance of the documents found proximity operators should be used. The FOCUS and DISPLAY OCCURRENCES commands should also be employed to identify relevant documents. Another way is to use selected search fields, e.g., /TI, /AB, /CLM, rather than searching the full text.

On the other hand the comprehensive text coverage has the advantage that certain search terms, such as proper names, very current or specific wordings, etc., will only appear here. This feature is often used when searching for prior art to be used in an opposition. It may also be that the otherwise very good indexing in bibliographical databases is less appropriate for certain fields of technology, e.g., if the field of search is a very new or dynamic one. Full-text databases can be very helpful in these circumstances.

In CNFULL and JPFULL, machine-translated titles and abstracts in English are entered first or the texts of equivalent publications are used. These texts are replaced with human-translated titles and abstracts (CN, JPA) after three months. The descriptions and claims are machine-translated.

Numeric Property Search (NPS) provides the opportunity to search numerical information in patent documents in the context of the full text. Because the numerical data are indexed in the continuous text of the document the proximity operators known from text search can be used to link numerical data with keywords. This search option has so far been implemented in the AUPATFULL, CANPATFULL, CNFULL, JPFULL and PCTFULL full-text databases.

Timeliness. Full-text databases either import the machine-readable text provided by the patent offices or they make use of an OCR (Optical Character Recognition) software to produce the full text. As the documents are not edited manually they can be made available very quickly. Thus, full-text databases are often used at the same time as bibliographical databases to cover very recent publications.

Additional bibliographic information. Full-text databases even offer extensive bibliographical information from the original documents, such as the addresses of applicants, inventors, or legal representatives.

Full-text searches are often performed as multi-file searches (e.g. in PCTFULL, EPFULL, PATDPFULL). The search result is likely to include a number of publications from the same patent family, which should be combined using their priority numbers. However, the priority numbers in full-text databases are often not in standard format, which makes it necessary to use either INPADOCDB or INPAFAMDB to identify the patent families. The “Multi-file” and the “Family” search examples illustrate this strategy.

The following table gives an overview of the contents and search options in full-text databases:

<table>
<thead>
<tr>
<th>Database</th>
<th>Contents</th>
<th>Language</th>
<th>SLART</th>
<th>Images</th>
<th>NPS*</th>
<th>LS / FAM</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUPATFULL</td>
<td>1964- AUA, AUB, AUC, AUD, AUS</td>
<td>EN</td>
<td>Bi, Ti, AB, CLM, MCLM</td>
<td>Yes</td>
<td>Yes</td>
<td>LS/FAM Disp</td>
<td>IPC, CPC, EPC, ICO, IDT</td>
</tr>
<tr>
<td>CANPATFULL</td>
<td>1920- CAA, CAB, CAC, CAE, CAF</td>
<td>EN, FR</td>
<td>Bi, Ti, AB, CLM, MCLM</td>
<td>Yes</td>
<td>Yes</td>
<td>LS/FAM Disp</td>
<td>IPC, CPC, EPC, ICO, IDT</td>
</tr>
<tr>
<td>CNFULL</td>
<td>1985- CAN, CNB, CNC, CNK1, CNK2, CNU, CNY</td>
<td>EN</td>
<td>Bi, Ti, AB, CLM, MCLM</td>
<td>Partly</td>
<td>Yes</td>
<td>LS/FAM Disp</td>
<td>IPC, CPC, EPC</td>
</tr>
<tr>
<td>DEFULL</td>
<td>1877- DEA, DEB, DEC, DET, DEU</td>
<td>DE, EN</td>
<td>Bi, Ti, AB, MCLM, CLM</td>
<td>Yes</td>
<td>Yes</td>
<td>LS/FAM Disp</td>
<td>IPC, CPC</td>
</tr>
</tbody>
</table>
### 28.2 Accessing the full text

Basically, there are two ways to get the full text of a patent document:

- Display the documents in ASCII format in one of the full-text databases (AUPATFULL, CANPATFULL, CNFULL, EPFULL, FRFULL, GBFULL, IFIALL, INFULL, JPFULL, PATDPAFULL, PCTFULL, RDISCLOSURE, USPATFULL, USPAT2, USPATOLD)
- Display the page images of a document (RDISCLOSURE)
- Display or order the full document using the FULLTEXT link

STN Express or STN on the WEB can be used. An Internet browser has to be installed on the computer.

#### 28.2.1 Displaying documents from full-text databases

The full text of patent publications is stored in the AUPATFULL, CANPATFULL, CNFULL, EPFULL, FRFULL, GBFULL, IFIALL, INFULL, JPFULL, PATDPAFULL, PCTFULL, RDISCLOSURE, USPATFULL, USPAT2 and USPATOLD databases (in IFIALL only the claims of US patents). It can be displayed online or printed directly. For information on the contents and time coverage see the database descriptions and on transferring patent images see section "Patent images".

An Optical Character Recognition (OCR) software is used to create the texts in the AUPATFULL, CANPATFULL, CNFULL, FRFULL, GBFULL, INFULL, JPFULL, PCTFULL und USPATOLD databases. This means that there may be spelling errors and text portions may be incomplete. A small number of documents have no text at all due to errors in the scanning process.

In PCTFULL the line length should be set to 100 to display the full text of a document in order to prevent unnecessary line breaks:

```plaintext
=> SET LINELENGTH 100
```

Once the display is complete the line length should be reset to the usual 80.
28.2.1.1 Using DISPLAY BROWSE

DISPLAY BROWSE can be used to browse a number of answers in order to check their relevance before the full text is displayed. It is especially useful that an answer set can be browsed in any order and even repeatedly. For each document displayed the most costly display format used is charged once. Documents can be tagged and combined into a new answer set with high relevance (see the reference sheet for the STN search language).

```plaintext
=> FIL EPFULL
=> S MOUSETRAP?
L1  16 MOUSETRAP?

=> D BRO
:TI
:1-6
L1    ANSWER 1 OF 16  EPFULL COPYRIGHT 2005 EPO/FIZ KA on STN
TIEN  Animal trap.
TIFR  Piege pour animaux.
TIDE  Tierfalle.

L1    ANSWER 2 OF 16  EPFULL COPYRIGHT 2005 EPO/FIZ KA on STN
TIEN  AUTOMATIC MOUSETRAP.
TIFR  SOURICIERE AUTOMATIQUE.
TIDE  AUTOMATISCHE MAUSEFALLE.

... 1 6 8 9 HIT ...

:TAG 1 8
ANSWER 1 TAGGED
ANSWER 8 TAGGED
:END

=> SORT TAG
ENTER (L1), L#, OR L# RANGE:.
ENTER SORT FIELDS AND SORT DIRECTION (?) : PD D
PROCESSING COMPLETED FOR L1
L2  2 SORT L1 TAG PD D

=> D 1-2 TI
L2    ANSWER 1 OF 2  EPFULL COPYRIGHT 2005 EPO/FIZ KA on STN
TIEN  Animal trap.
TIFR  Piege pour animaux.
TIDE  Tierfalle.

L2    ANSWER 2 OF 2  EPFULL COPYRIGHT 2005 EPO/FIZ KA on STN
TIEN  Center pivot door for a top load horizontal axis washing machine.
TIFR  Porte a pivotement central pour machine a laver a axe horizontal.
TIDE  Tuer mit zentralen Drehpunkt fuer eine von oben beschickbare mit waagerechter Achse arbeitende Waschmaschine.

=> SEL 1- PN
E1 THROUGH E2 ASSIGNED

=> D SEL
E1    1  EP1300077/PN
E2    1  EP869212/PN
```

The basic options are:

- Display documents from the answer set in any format
- Change the default format
- Display selected fields
- Tag documents for later sorting and processing

This is a short summary of options available:
Types of search

: dis Display the next or first document in the default format
: 1-4 Display answers 1–4 in the default format
: 3, 7, 10 Display answers 3, 7, 10 in the default format
: *trial Change the default format to TRIAL
: 4 hit Display answer 4 in HIT format
: tag Tag current document for later sorting
: untag 10 Untag answer 10
: end End DISPLAY BROWSE and return to the normal Messenger prompt (=)

Additional options, e.g. string search, are available in USPATFULL/USPAT2:

: F3 Forward 3 fields
: B3 Back 3 fields
: S MOTOR Search forward for the word ‘motor’ in the document
: S-MOTOR Search backward for the word ‘motor’ in the document

28.2.2 FULLTEXT Link

A FULLTEXT link is available for every document in all bibliographical and full text databases if at least the bibliographical details are displayed. (There is no link if e.g. only the title is displayed.) When the link is clicked the ways STN offers to get the full text are displayed:

- Web-based document resources
  Page images can be downloaded free from Espacenet (European Patent Office, PDF) and from the USPTO (U.S. Patent and Trademark Office, single pages, TIFF).

- Fee-based document resources
  - Download document: The full text (single PDF file) can be downloaded immediately. A fee applies.
  - Order document: You can order the full text from FIZ AUTODOC (as a PDF file or printed). An order form will be displayed. A fee applies.

If any special software is needed to display images you will be alerted to this.
29 Patent statistics

29.1 Introduction
To create useful patent statistics – time series, inventor and applicant statistics, country statistics, technology field statistics, citation statistics – there are a number of preconditions:

- **Suitable databases.** The required fields must be available. They must be consistently filled throughout the time period to be analyzed. They must be filled in such a way that the entries are useable, i.e. they need to be structured and standardised. Multiple entries in one field should not occur.

- **Good database knowledge.** The databases are differently suitable for patent statistics. National patent databases are suitable only for statistics concerning a particular country while using international databases patent statistics for several countries can be created. The dynamics concepts and family definitions of the databases should always be considered. Some databases contain only one document per national publication sequence, others include further publications of the same patent application in various ways. In this case the suitable fields must be chosen, e.g. to include into the analysis only the latest document of the national publication sequence. The patent family size may also influence the statistics result. There are certain analyses, e.g. citation statistics, where only few databases are suitable at all.

- **Good searching knowledge.** A market or technology field analysis will always be preceded by a subject search using classification and text search. It is up to the searcher to either use the documents from an existing subject search or to prepare a special search strategy for the purpose of statistical analysis. A competitor analysis will always be preceded by a carefully performed name search.

- **Using suitable statistics tools.** STN International offers a number of tools:
  - SELECT can be used to create rankings. Creation and display of the lists can be tailored using a number of options.
  - ANALYZE and TABULATE can be used to create statistical tables, that may then be displayed, sorted and edited according to needs or that can be exported to Excel for post-processing.
  - Mit Analyze Plus werden die statistischen Tabellen inklusive Sortieren, Editieren und Visualisieren menügeführt erstellt.
    Using ANALYZE Plus it is possible to create the statistical tables guided by menus, including sorting, editing, and visualization.
  - STN AnaVist is an interactive analysis and visualization tool. A precondition for this is that the data in the databases are standardised.

The first precondition for an analysis of patent applications or granted patents is a suitable sample. It is only with an appropriate search result that a meaningful result can be obtained with the statistics tools. Wrong documents in the search result will lead to a false analysis result and cause misinterpretations. One cannot point out often enough that a profound knowledge of the databases and search strategies is indispensable to perform statistical analyses. It is only too often that errors are found even in the technical literature.

Below the STN tools for patent statistics are presented and their uses for the creation of statistical analyses are discussed. The tools are either used on-line (in part the free STNGUIDE database can be used) or the tables and diagrams can also be edited off-line. There may be fees for connect time to the databases and in some cases for use of the tools, but there is no need to download, and thus pay for, the documents to be analysed.

29.2 The SELECT command
The SELECT command extracts terms from source documents, counts their occurrences, and creates a list of terms ordered by descending occurrence.

```
=> SET ICFORMAT ON
=> SEL L1 1. IPC.F
E1 THROUGH E439 ASSIGNED
```

The command is used with the following parameters:
29.3 The ANALYZE command

The ANALYZE command creates an L number containing the result of the analysis. No E numbers are assigned. For ANALYZE the same parameters and options can be used as for SELECT.

=> FIL WPINDEX

=> E SYMRISE/PA
E1 2 SYMPULS/PA
E2 2 SYMPULS GES PULSTEC/PA
E3 483 ... SYMRISE/PA
E4 139 SYMRISE AG/PA
E5 1 SYMRISE GMBH/PA
E6 61 SYMRISE GMBH & CO KG/PA
E7 16 SYMRISE GMBH CO KG/PA

The result of a SELECT command – much like the EXPAND result – can be used to continue the search by entering the appropriate E numbers in a SEARCH command.

A SELECT invalidates any E numbers previously obtained by EXPAND. In successive SELECT applications, the lists are appended to the respective end of the previous SELECT result. A new EXPAND command in turn deletes the E numbers of a previous SELECT. This behaviour can be changed by the command SET EXP CONT, which causes any new E-numbered list to be appended to an existing one. The E numbers can be deleted explicitly with DEL SEL.
To view the result, use the DISPLAY command. A table is displayed that shows
- The current number of the entry,
- Its frequency of occurrence,
- The number of documents where it occurs,
- The percentage of documents where it occurs, and
- The extracted entry itself.

Several fields may be selected with one ANALYZE command. If the LENGTH option is used the respective field should be in the first position. The WITH option cannot be used as it would apply to all fields used.

Then the individual lists may be displayed separately. (This can be done in the STNGUIDE file.)
### Types of search

<table>
<thead>
<tr>
<th>TERM #</th>
<th># OCC</th>
<th># DOC</th>
<th>% DOC</th>
<th>IPC.F</th>
<th>PRYF</th>
<th>PRC</th>
<th>PCS</th>
<th>IN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1579</td>
<td>448</td>
<td>92.75</td>
<td>DE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1219</td>
<td>414</td>
<td>85.71</td>
<td>ES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1190</td>
<td>414</td>
<td>85.71</td>
<td>GB</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1157</td>
<td>414</td>
<td>85.71</td>
<td>CH</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>1149</td>
<td>413</td>
<td>85.51</td>
<td>SE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1146</td>
<td>413</td>
<td>85.51</td>
<td>AT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1145</td>
<td>412</td>
<td>85.30</td>
<td>DK</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are various options to display the result obtained with ANALYZE:

- **1-** displays all entries; default the first 10 entries,
- **TOP n** displays the n entries with the highest frequency of occurrence,
- **OGT n** displays all entries with a frequency of occurrence exceeding n,
- **DGT n** displays all entries that were found in more than n documents,
- **%GT n or PGT n** displays all entries found in more than n per cent of the documents,
- **WITH "..."** displays entries containing the quoted string,
- **NOT "..."** displays entries that do not contain the quoted string,

These options govern the order in which the result is displayed:

- **DOCUMENT** sorts the list by number of documents, in which the terms occur,
- **PERCENT** sorts the list by percentage,
- **ALPHABETIC** sorts the list in alphabetical order,
- **OCC** sorts by number of occurrence of the terms.

The sort order may be ascending (A) or descending (D).

The Term Numbers may be reassigned when the result is re-sorted, e.g. when sorting by years (this should be considered when the search is continued).

A specific sort function remains valid until a new sort function is specified.

```
=> D PRYF ALPH D
L3          ANALYZE L1 1- 1 IPC.F PRYF PRC PCS IN LEN 4 :     814 TERMS
TERM #   # OCC   # DOC  % DOC  IPC.F  PRYF  PRC  PCS  IN
-------  -------  ------  ------  ------  -----  -----  -----  ------
 1       2       2     0.41   2012   
 2      20      20     4.14   2011   
 3     31       31     6.42   2010   
 4     27       27     5.59   2009   
 5     32       32     6.63   2008   
 6     51       51    10.56   2007   
 7     51       51    10.56   2006   
 8     48       48    09.94   2005   

=> D PRC DOC
L3          ANALYZE L1 1- 1 IPC.F PRYF PRC PCS IN LEN 4 :     814 TERMS
TERM #   # OCC   # DOC  % DOC  IPC.F  PRYF  PRC  PCS  IN
-------  -------  ------  ------  ------  -----  -----  -----  ------
103     243     225   46.58    DE   
119     262     139   28.78    US   
128     84       79   16.36    EP   
139     44       44   09.11    WO   
169     19       19   03.93    RD   
```
Further options influence the appearance of the displayed data:

**ANS** shows a list of answer numbers for each term (Exception: display fields that include key identifying information such as patent numbers, accession numbers, and CAS Registry Number identifiers);

**DETAIL** shows the terms with appended field tags (particularly useful if multiple fields have been selected);

**DELIMITED** shows the data in a delimited format appropriate for automatic processing (e.g. to enter the data into a spreadsheet to create a chart).

### 29.3.1 Using an ANALYZE result for searching

An ANALYZE result can easily be used for a further search or analysis. The following options are available:

1. Apply SEARCH to the L number or TRANSFER to all terms of the L number of the ANALYZE result, e.g. to transport the terms to another database,

2. Apply TRANSFER to some terms of the ANALYZE result or to a subset limited by one of the options DGT, OGT, PGT, TOP, WITH, or NOT.

3. Apply SELECT to the L number of the ANALYZE result. The same options as above (2) may be used. The result will be an E-numbered list that can be used in the same way as any other E-numbered list.

**Example:** Using the result of L3, further analysis is to be done. The new base to be used are the patents of Symrise in the technologies represented by the 10 most frequent classifications (Subclasses). Variant 3 is used first:

```plaintext
=> FIL WP INDEX

=> D IPC.F

L3          ANALYZE L1 1- IPC.F PRYF PRC PCS I N LEN 4 : 814 TERMS

TERM #   # OCC  # DOC  % DOC IPC.F PRYF PRC PCS IN
------  ------  ------  --------  ------  ------  ------  ------
  120     155    155  32.09 A61K
  131      73     73  15.11 C07C
  132      71     71  14.70 A23L
  150      32     32  6.63 C07D
  163      21     21  4.35 C10L
  170      18     18  3.73 C11B
  183      14     14  2.90 A61Q
  192      11     11  2.28 C11D
  203       9      9  1.86 A23G
  204       9      9  1.86 B01J

=> SEL L3 120 131 132 150 163 170 183 192 203 204
E1 THROUGH E10 ASSIGNED

=> S E1-E10/IPC AND L1

L4        457 (A61K/IPC OR C07C/IPC OR A23L/IPC OR C07D/IPC OR C10L/IPC OR C11B/IPC OR A61Q/IPC OR C11D/IPC OR A23G/IPC OR B01J/IPC) AND L1

(In place of SELECT another ANALYZE could have been used.)

Using TRANSFER (Variant 2) the same result is obtained this way. As IPC.F is not a search field the correct search field needs to be inserted:

```plaintext
=> TRANSFER L3 117 119 127 137 138 158 174 175 176 183
L5        TRANSFER L3 120,131,132,150,163,170,183,192,203,204 : 10 TERMS

"IPC.F" IS NOT A VALID FIELD CODE
L6        0 L5

=> S L5/IPC AND L1
ALL TERMS IN L5/IPC RETRIEVED.
L8        457 L7 AND L
```

### 29.3.2 Editing an ANALYZE result

It often occurs that for example a patent assignee pops up with a number of variations of his name in the documents and thus in the ANALYZE result.

```plaintext
=> FIL EP FULL

210
```
Types of search

```
=> $ B41F/IPC AND PRY >=2002
L1  4018  B41F/IPC  AND PRY >=2002

=> ANALYZE L1 1- PA PRY PRC
L2  ANALYZE L1 1- PA PRY PRC :  1196 TERMS

=> FILE STNGUIDE

=> $ D L2 PA
L2  ANALYZE L1 1- PA PRY PRC :  1196 TERMS

TERM #   # OCC  # DOC  % DOC  PA   PRY   PRC
-------  -------  -------  -------  ----  ----  ----
  12     446    446  11.10  MANROLAND AG
  13     400    400  9.96   KOENIG & BAUER AKTIENGESELLSCHAFT
  18     164    164  4.08   KOMORI CORPORATION
  21     104    104  2.59   KOENIG & BAUER AG
  24     79     79  1.97   GOSS INTERNATIONAL AMERICAS, INC.
  25     78     78  1.94   WINDMOELLER & HOELSCHER KG
  26     73     73  1.82   KBA-NOTASYS SA
  27     66     66  1.64   WIFAG MASCHINENFABRIK AG
  28     61     61  1.52   MITSUBISHI HEAVY INDUSTRIES, LTD.
  29     56     56  1.39   KBA-CHI S.A.

In an ANALYZE result, these list entries can be combined using the EDIT command. It is a good idea to display and edit the list in the STNGUIDE file (no connect hour charges). To find all the different spellings of the names the Patent Assignee lists have to be displayed in full:

```

=> EDIT L2
ENTER (CHANGE), COMBINE, OR TITLE: COMBINE
ENTER PREFERRED TERM NUMBER OR (?): 12
PREFERRED TERM: MANROLAND AG/PA
ENTER EQUIVALENT TERM NUMBERS OR (END): 30 46 62
EQUIVALENT TERM: MANROLAND SHEETFED GMBH/PA
EQUIVALENT TERM: MANROLAND DRUCKMASCHINEN AG/PA
EQUIVALENT TERM: MANROLAND WEB SYSTEMS GMBH/PA
ENTER EQUIVALENT TERM NUMBERS OR (END):.
APPLY CHANGES? (Y)/N: Y
TERMS COMBINED

```

```
=> $ D L2 PA
L2  ANALYZE L1 1- PA PRY PRC :  1196 TERMS
(AFTER EDITS :  1193 TERMS)

TERM #   # OCC  # DOC  % DOC  PA   PRY   PRC
-------  -------  -------  -------  ----  ----  ----
  12     537    537  13.36  MANROLAND AG
  13     400    400  9.96   KOENIG & BAUER AKTIENGESELLSCHAFT
  18     164    164  4.08   KOMORI CORPORATION
  21     104    104  2.59   KOENIG & BAUER AG
  24     79     79  1.97   GOSS INTERNATIONAL AMERICAS, INC.
  25     78     78  1.94   WINDMOELLER & HOELSCHER KG
  26     73     73  1.82   KBA-NOTASYS SA
  27     66     66  1.64   WIFAG MASCHINENFABRIK AG
  28     61     61  1.52   MITSUBISHI HEAVY INDUSTRIES, LTD.
  29     56     56  1.39   KBA-GIORI S.A.

@ INDICATES TERM AFFECTED BY MOST RECENT EDITS

All entries of all relevant patent assignees should be edited in this way. In a following DISPLAY the entries that were edited are marked.

If EDIT COMBINE is repeated note that the term numbers change. Thus, the patent assignee list has to be displayed repeatedly to use the correct term numbers.

In this example note that there are two variations of the name KOENIG & Bauer Aktiengesellschaft in 652 documents, but 654 hits. This means that there are two documents where both variations of the name occur. This is reflected in the new list:
Use EDIT CHANGE to e.g. shorten very long names:

```plaintext
=> EDIT L2
ENTER (CHANGE), COMBINE, OR TITLE:.
ENTER TERM NUMBERS OR (ALL):.
ENTER STRING TO BE REPLACED OR (END): AKTIENGESELLSCHAFT
ENTER REPLACING STRING OR (NONE): AG
```

Use EDIT CHANGE to e.g. shorten very long names:
29.4 SELECT or ANALYZE?

Whether to use SELECT or ANALYZE depends on the search or statistics problem at hand.

<table>
<thead>
<tr>
<th></th>
<th>SELECT</th>
<th>ANALYZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply to results from one single database</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Apply to results from a Multi-file search</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Maximum number of terms/documents to extract</td>
<td>999 E numbers</td>
<td>50 000 documents</td>
</tr>
<tr>
<td>Display of details:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of occurrences</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Number of documents</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Percentage of documents</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Answer numbers for extracted terms</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Sorting of display:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>By number of occurrences</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>By number of documents</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>By percentage of documents</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Alphabetical/alphabetic</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Combining of terms/variations</td>
<td></td>
<td>+</td>
</tr>
<tr>
<td>Use of extracted terms for a search:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All terms</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Selected terms</td>
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<td>+</td>
</tr>
<tr>
<td>Costs</td>
<td>variable</td>
<td>variable</td>
</tr>
<tr>
<td>(and dependent on the file)</td>
<td>(price dependent on number of documents treated)</td>
<td></td>
</tr>
</tbody>
</table>

Caution: In CA/HCA/CAplus/HCAplus/ZCA/ZCAplus the charges for each SELECT are considerable (for fields from both patent or non-patent documents). Consider preferring ANALYZE.

Note: To create patent statistics including graphical representations the ANALYZE PLUS function of STN Express is most useful.

29.5 Displaying a results table – TABULATE

By using the TABULATE command the data from two fields of an ANALYZE result can be displayed in a tabular format (this goes also for an already edited result). This way it is possible to see e.g. a list of patent assignees and the number of their applications over time.

When entering a TABULATE command it has to be specified whether the result is to be displayed in a tabular format or as a delimited list (for later processing by a spreadsheet or presentation program, e.g. Excel). It is not possible to get both types of display by just one TABULATE command.

Tabular format:

=> TABULATE L2 PA PRY

Delimited format:

=> TABULATE L2 PA PRY DELIMITED

For the tabular format again there are two options:

- Default format
- GRID

TABULATE should be used in beginner’s mode. For later processing, e.g. by Excel, the GRID format can be used. This format displays a two-dimensional table, displaying the terms of the primary display code in rows and the terms of the secondary code in columns. The number of documents for each combination of terms is displayed in the respective intersection.

=> TABULATE L2
DISPLAY AS GRID FORMAT (N), Y, OR ?: Y
ENTER PRIMARY DISPLAY CODE OR (?) : PA
ENTER SECONDARY DISPLAY CODE OR (?) : PRY
DISPLAY PRIMARY (TOP 10), ENTIRE OR ?:.
PRIMARY SORT ORDER (CURRENT), DOC, ALPHA, OR ?: DOC
Guide to STN Patent Databases

**PRI MARY S OR T D IR ECTION ( DEFAULT), A, D, OR ?: D**

**SECONDARY S OR T ORDER ( CURRENT), DOC, ALPHA, OR ?: ALPH**

**SECONDARY S OR T D IR ECTION ( DEFAULT), A, D, OR ?: A**

A FEE WILL BE CHARGED. PROCEED? (Y), N, OR ?: Y

L2 ANALYZE L1 1. PA PRY PRC : 1164 TERMS (AFTER EDITS : 1139TERMS)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>KOENIG &amp; BAUER AG</td>
<td>165</td>
<td>99</td>
<td>99</td>
<td>72</td>
<td>91</td>
<td>64</td>
<td>40</td>
<td>25</td>
<td>27</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>MANROLAND AG</td>
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<td>19</td>
<td>59</td>
<td>87</td>
<td>104</td>
<td>123</td>
<td>101</td>
<td>45</td>
<td>17</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>KOMORI CORPORATION</td>
<td>14</td>
<td>18</td>
<td>11</td>
<td>25</td>
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<td>41</td>
<td>17</td>
<td>7</td>
<td>13</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>GOSS INTERNATIONAL</td>
<td>10</td>
<td>16</td>
<td>15</td>
<td>29</td>
<td>14</td>
<td>15</td>
<td>30</td>
<td>11</td>
<td>18</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>MITSUBISHI HEAVY IND</td>
<td>9</td>
<td>3</td>
<td>8</td>
<td>6</td>
<td>28</td>
<td>25</td>
<td>20</td>
<td>12</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>HEIDELBERGER DRUCK AG</td>
<td>3</td>
<td>8</td>
<td>12</td>
<td>6</td>
<td>23</td>
<td>20</td>
<td>9</td>
<td>7</td>
<td>8</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>WINDMUELLER &amp; HOELSCHER KG</td>
<td>12</td>
<td>10</td>
<td>9</td>
<td>5</td>
<td>11</td>
<td>10</td>
<td>11</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>WIFAG MASCHINENFABRIK</td>
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<td>4</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>12</td>
<td>7</td>
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<td>1</td>
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<td>0</td>
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<td>6</td>
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<td>18</td>
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<td>6</td>
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<td>1</td>
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<td>0</td>
</tr>
<tr>
<td>BALDWIN N</td>
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<td>8</td>
<td>11</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

REFORMAT USING SAME DISPLAY FIELDS? (N), Y, OR ?: Y

For the sort order the default should be used, or else these rules be observed in order to obtain a useful display:

- Doc (sort by number of documents) → D (descending)
- Alp (alphabetical order) → A (ascending)

The table can be resorted without extra cost. If the same data is wanted in DELIMITED format a new TABULATE command must be entered, though.

<table>
<thead>
<tr>
<th>TERM # # DOC</th>
<th>% DOC</th>
<th>PA</th>
<th>PRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>652</td>
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<td></td>
</tr>
<tr>
<td>2</td>
<td>0.05</td>
<td>KOENIG &amp; BAUER AG</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>0.40</td>
<td>2012</td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>0.67</td>
<td>2010</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>0.62</td>
<td>2009</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>1.00</td>
<td>2008</td>
<td></td>
</tr>
<tr>
<td>64</td>
<td>1.59</td>
<td>2007</td>
<td></td>
</tr>
<tr>
<td>91</td>
<td>2.26</td>
<td>2006</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>1.79</td>
<td>2005</td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>2.46</td>
<td>2004</td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>2.46</td>
<td>2003</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>545</td>
<td>13.56</td>
<td></td>
</tr>
<tr>
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<td>0.02</td>
<td>MANROLAND AG</td>
<td></td>
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<tr>
<td>10</td>
<td>0.25</td>
<td>2011</td>
<td></td>
</tr>
<tr>
<td>17</td>
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<td>2010</td>
<td></td>
</tr>
<tr>
<td>45</td>
<td>1.12</td>
<td>2009</td>
<td></td>
</tr>
<tr>
<td>101</td>
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</tr>
<tr>
<td>123</td>
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<td>2007</td>
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<tr>
<td>87</td>
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<td>2005</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>1.47</td>
<td>2004</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>0.47</td>
<td>2003</td>
<td></td>
</tr>
</tbody>
</table>

REFORMAT USING SAME DISPLAY FIELDS? (N), Y, OR ?: END
29.5.1 Using the results in a spreadsheet program

If the statistical data are to be processed in a spreadsheet program the DELIMITED format should be used:

>`TABULATE L2 DELIMITED`

DISPLAY AS GRID FORMAT (N), Y, OR ?: N
ENTER PRIMARY DISPLAY CODE OR (?): PA
ENTER SECONDARY DISPLAY CODE OR (?): PRY
DISPLAY PRIMARY (TOP 10), ENTIRE OR ?: ENTIRE
DISPLAY SECONDARY (TOP 10), ENTIRE OR ?: ENTIRE
PRIMARY SORT ORDER (CURRENT), DOC, ALPHA, OR ?: DOC
SECONDARY SORT ORDER (CURRENT), DOC, ALPHA, OR ?: ALPH
L2 ANALYZE L1 - PA PRY PRC : 1196 TERMS
(AFTER EDITS : 1167 TERMS)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Value</th>
<th>Company</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0.05</td>
<td>KOENIG &amp; BAUER AG</td>
<td>2012</td>
</tr>
<tr>
<td>16</td>
<td>0.40</td>
<td>KOENIG &amp; BAUER AG</td>
<td>2011</td>
</tr>
<tr>
<td>27</td>
<td>0.67</td>
<td>KOENIG &amp; BAUER AG</td>
<td>2010</td>
</tr>
<tr>
<td>25</td>
<td>0.62</td>
<td>KOENIG &amp; BAUER AG</td>
<td>2009</td>
</tr>
<tr>
<td>40</td>
<td>1.00</td>
<td>KOENIG &amp; BAUER AG</td>
<td>2008</td>
</tr>
<tr>
<td>64</td>
<td>1.59</td>
<td>KOENIG &amp; BAUER AG</td>
<td>2007</td>
</tr>
<tr>
<td>91</td>
<td>2.26</td>
<td>KOENIG &amp; BAUER AG</td>
<td>2006</td>
</tr>
<tr>
<td>72</td>
<td>1.79</td>
<td>KOENIG &amp; BAUER AG</td>
<td>2005</td>
</tr>
<tr>
<td>99</td>
<td>2.46</td>
<td>KOENIG &amp; BAUER AG</td>
<td>2004</td>
</tr>
<tr>
<td>99</td>
<td>2.46</td>
<td>KOENIG &amp; BAUER AG</td>
<td>2003</td>
</tr>
<tr>
<td>165</td>
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<td>2002</td>
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<tr>
<td>37</td>
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<td>KOENIG &amp; BAUER AG</td>
<td>2001</td>
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<tr>
<td>1</td>
<td>0.02</td>
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<td>2012</td>
</tr>
<tr>
<td>10</td>
<td>0.25</td>
<td>MANROLAND AG</td>
<td>2011</td>
</tr>
<tr>
<td>17</td>
<td>0.42</td>
<td>MANROLAND AG</td>
<td>2010</td>
</tr>
<tr>
<td>45</td>
<td>1.12</td>
<td>MANROLAND AG</td>
<td>2009</td>
</tr>
<tr>
<td>101</td>
<td>2.51</td>
<td>MANROLAND AG</td>
<td>2008</td>
</tr>
<tr>
<td>123</td>
<td>3.06</td>
<td>MANROLAND AG</td>
<td>2007</td>
</tr>
<tr>
<td>104</td>
<td>2.59</td>
<td>MANROLAND AG</td>
<td>2006</td>
</tr>
<tr>
<td>87</td>
<td>2.17</td>
<td>MANROLAND AG</td>
<td>2005</td>
</tr>
<tr>
<td>59</td>
<td>1.47</td>
<td>MANROLAND AG</td>
<td>2004</td>
</tr>
<tr>
<td>19</td>
<td>0.47</td>
<td>MANROLAND AG</td>
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</tr>
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<td>2002</td>
</tr>
<tr>
<td>1</td>
<td>0.02</td>
<td>MANROLAND AG</td>
<td>2001</td>
</tr>
<tr>
<td>1</td>
<td>0.02</td>
<td>KOMORI CORPORATION</td>
<td>2012</td>
</tr>
<tr>
<td>15</td>
<td>0.37</td>
<td>KOMORI CORPORATION</td>
<td>2011</td>
</tr>
<tr>
<td>13</td>
<td>0.32</td>
<td>KOMORI CORPORATION</td>
<td>2010</td>
</tr>
<tr>
<td>7</td>
<td>0.17</td>
<td>KOMORI CORPORATION</td>
<td>2009</td>
</tr>
<tr>
<td>17</td>
<td>0.42</td>
<td>KOMORI CORPORATION</td>
<td>2008</td>
</tr>
</tbody>
</table>

REFORMAT USING SAME DISPLAY FIELDS? (N), Y, OR ?: N

This table with the ‘semicolon’ as separator can easily be copied to the spreadsheet program (in this example Excel) and be processed there.

Procedure:

- Copy to Excel (Select/Copy/Paste)
- Make a spreadsheet (Data/Text in columns/Separator: Semicolon, Delete % column, Delete empty column, Enter column titles)
- Make a PIVOT table (Data/PIVOT table)
- Make a 3D diagram (Diagram wizard, show diagram on a new sheet, copy diagram and paste it e.g. to Word)
29.6 Using STN Express

STN Express has two tools for analyses (from version 7.0):

- **ANALYZE:**
  - To analyse one or two fields from an answer set
  - To create diagrams

- **ANALYZE PLUS:**
  - To analyse one or two fields from an answer set
  - To group/edit the lists and save the results
  - To create diagrams and an interactive Excel matrix; displaying STN documents is possible
Types of search

- To save tabular data (.TBN) for off-line or on-line processing in order to create new diagrams (from version 8.0)

An example using ANALYZE PLUS is shown here:

```
=> FIL WPINDEX
=> S B60R0021-01+NT/IPC AND PRYF>=1998
L1 4383 B60R0021-01+NT/IPC AND PRYF>=1998
```

Click on the L number (L1) to produce a menu where ANALYZE PLUS is selected. (There is also an option in the menu to save the search result for processing with the STN Anavist software: Save for STN Anavist.)

This calls the Analyze Plus Wizard (STN Express 8.0):

Here you can choose between

- One field analysis
- Two field analysis

For our example choose Two field analysis (a One field analysis example see the “ANALYZE” search example). Further the fields to be analysed are selected. Some of these are shown in the window; if the desired field is not shown here it can be added by clicking Options.

Group similar terms should always be activated when the Patent Assignee is analysed; this will automatically group similar Patent Assignee names.

Capture delimited tabulation data for later use should be activated if you are going to create off-line or on-line Excel files or if you wish to group/edit the lists off-line.
This is the Options window:

Here you can enter the desired fields as Custom fields. For Terms to view 10 is selected. The sort order for the Patent Assignee should be by frequency, and for the Priority Year alphanumerically. Click OK when ready. The previous window will reappear and you can click ANALYZE. If Capture delimited tabulation data for later use was activated a Save as dialog will appear to create a .TBN file which is used to save the statistics results.

Then the analysis is performed. If Two field analysis was selected a TABULATE will be done. This may take some time, in particular with big answer sets. After that the Excel files and Excel diagrams are created. For this the system automatically changes to the STNGUIDE file (free of charge).

The Data Group Tool shows all Patent Assignee names, even if only the top 10 names were wanted. The reason for this is shown below. After the analysis or when the TBN file is opened this window will open to group the first field:

The Patent Assignee Code / Patent Assignee present in the answer set are listed in alphabetical order. Having activated Group similar terms in the Analyze Plus Wizard similar names have already been grouped automatically. This list should be checked and if necessary more names can be grouped here. The result can be saved with Save changes to data groupings. The list can then be edited off-line later and is immediately available for further analysis (in STN Express). Here is an example with grouped entries for 'TRW':
More information on grouping Patent Assignee names can be found in the search examples. With Next the window for the second field is displayed:

No changes are needed here. Finish starts the creation of the Excel tables and diagrams.

Excel will be opened automatically and ‘Workbook 1’ (interactive) and ‘Sheet 1’ (Excel table only) will be created.

The table created, ‘Cross-Tab’, is interactive, i.e. you can click on a field to see the respective documents in a free format. Other formats to be displayed can be selected from a menu. (If you are off-line STN Express will automatically open the Login window to connect to STN.)
When you click on one of the above fields this window will be displayed:

The interactive diagram '3D Column' possibly just shows part of the picture where you can choose the start and end (see Excel’s menu). As our example is with 10 Patent Assignees only this diagram shows the complete picture. This diagram can be edited (e.g. delete lines, change colours, display a legend, etc.) or a different type of diagram be selected.
Other views/diagrams can be created easily (columns, bars, lines, circles, etc.):

A second Excel file is created that contains the raw data for processing. Here are the table and the diagram that can be opened:
Creating the diagrams from saved tabular data (STN Express from version 8.0):

The STN Online and Results menu offers for example:

- Edit Data Group File: to edit the grouped lists (PA, PAS, etc.) off-line if they were saved
- Create Analyze Plus chart from saved data: to start creation of new Excel tables and diagrams with the previously saved TBN file. This file contains all the tabular data and is not limited, e.g. to the most frequent Patent Assignees. So these data can be used to create completely new diagrams.

29.7 ANALYZE or ANALYZE PLUS?

By using the ANALYZE command one can analyse the data from a number of fields in one step and then display the results. There are several options for the analysis and to format the results display. Considerable time may be needed to edit table data (e.g. Patent Assignee names) and to create Excel tables and diagrams.

When using ANALYZE PLUS the fields to be analysed need to be dealt with individually. This is likely to cause higher on-line cost. Fewer sort options for the documents are available. Anyway, using the available tools the statistical analysis including any diagrams can be created quickly, minimising the required working time. This way good quality diagrams can be created even without in-depth knowledge of the Excel software.

29.7.1 Combining the ANALYZE command and ANALYZE PLUS

- If you wish to perform analysis on several fields you may save cost by entering one ANALYZE command on all desired fields together in the first step. ANALYZE PLUS is then applied for each each desired visualization (One-Field-Analysis, Two-Field-Analysis). If you wish for example to analyse four fields (One Field Analysis) you will be charged 1 ANALYZE command plus 4 ANALYZE PLUS rather than 4 ANALYZE commands plus 4 ANALYZE PLUS.
- The Data Group function of ANALYZE PLUS lists all entries (e.g. Patent Assignee names) in alphabetical order only. This means there is no ranking and one would in theory have to edit all the names even if one is interested in the 20 most frequent companies only. Therefore you could first use the ANALYZE command and display the list sorted by rank. Then you start ANALYZE PLUS. When grouping you concentrate on the companies ranking highest. This procedure does not produce any extra charges.
- The charge for ANALYZE PLUS is applied when ‘Finish’ is clicked after the fields have been edited. If you cancel the command (e.g. due to an error) no charge applies. This is why it is also a good idea to first perform ANALYZE in order to keep any intermediate results.
29.7.2 Cost

<table>
<thead>
<tr>
<th>ANALYZE</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>1-1 000 answers</td>
<td>€34,25</td>
<td></td>
</tr>
<tr>
<td>Level 2</td>
<td>1 001-10 000 answers</td>
<td>€54,60</td>
<td></td>
</tr>
<tr>
<td>Level 3</td>
<td>10 001-50 000 answers</td>
<td>€83,20</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABULATE</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€90,10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANALYZE PLUS</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Always follows an ANALYZE or TABULATE command</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>1–1 000 answers</td>
<td>€54,60</td>
<td></td>
</tr>
<tr>
<td>Level 2</td>
<td>1 001–10 000 answers</td>
<td>€68,70</td>
<td></td>
</tr>
<tr>
<td>Level 3</td>
<td>10 001–50 000 answers</td>
<td>€112,60</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ANALYZE PLUS</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>One-field</td>
<td>ANALYZE (Level 1, 2 or 3) + ANALYZE PLUS (Level 1, 2 or 3)</td>
<td>€98,85...195,80</td>
<td></td>
</tr>
<tr>
<td>Two-field</td>
<td>ANALYZE (Level 1, 2 or 3) + TABULATE + ANALYZE PLUS (Level 1, 2 or 3)</td>
<td>€178,95...285,90</td>
<td></td>
</tr>
</tbody>
</table>

It is a good idea to first perform ANALYZE and then ANALYZE PLUS.

29.8 Summary: SELECT, ANALYZE, ANALYZE PLUS

29.8.1 SELECT

<table>
<thead>
<tr>
<th>Use:</th>
<th>Creation of rankings / time series from the search results in a database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Options:</td>
<td>Some options for display of lists</td>
</tr>
<tr>
<td>Maximum number of terms to be extracted /</td>
<td>999 terms</td>
</tr>
<tr>
<td>documents:</td>
<td></td>
</tr>
<tr>
<td>Editing of tables:</td>
<td>Editing or sorting the lists, e.g. patent assignee names, is not possible</td>
</tr>
<tr>
<td>Using two or more criteria:</td>
<td>Only in succession</td>
</tr>
<tr>
<td>Visualization of results:</td>
<td>No special support for visualization or transfer to Excel</td>
</tr>
<tr>
<td>Functions to improve the relevance of the</td>
<td>The SELECT result can be used for further searching to obtain a new</td>
</tr>
<tr>
<td>search result / sample:</td>
<td>(more relevant) sample</td>
</tr>
</tbody>
</table>

Conclusion: Because of its limited options in particular for the treatment and display of the results SELECT is rather a tool to improve a search strategy (e.g. to find appropriate classifications or keywords) than a real statistics tool.

29.8.2 ANALYZE / TABULATE

<table>
<thead>
<tr>
<th>Use:</th>
<th>Creation of statistical tables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Options:</td>
<td>Many options for display and sorting of lists</td>
</tr>
<tr>
<td>Maximum number of terms to be extracted /</td>
<td>50 000 documents</td>
</tr>
<tr>
<td>documents:</td>
<td></td>
</tr>
<tr>
<td>Editing of tables:</td>
<td>Editing the lists, e.g. patent assignee names, is possible</td>
</tr>
<tr>
<td>Using two or more criteria:</td>
<td>Criteria can be edited at the same time, two criteria can be displayed in one table.</td>
</tr>
<tr>
<td>Visualization of results:</td>
<td>Visualization and transfer of results to Excel is supported.</td>
</tr>
<tr>
<td>Functions to improve the relevance of the</td>
<td>The ANALYZE result can be used for further searching to obtain a new (more relevant) sample.</td>
</tr>
<tr>
<td>search result / sample:</td>
<td></td>
</tr>
</tbody>
</table>

Conclusion: ANALYZE and TABULATE offer convenient options to create statistical tables. At the same time it is relatively inconvenient to edit the tables (e.g. patent assignee names). For post-processing and visualization a good knowledge of Excel or other software tools is needed.
29.8.3 ANALYZE PLUS

<table>
<thead>
<tr>
<th>Use:</th>
<th>Menu based creation of statistical tables including visualization.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Options:</td>
<td>Necessary options for display and sorting of lists.</td>
</tr>
<tr>
<td>Max. term</td>
<td>50,000 documents.</td>
</tr>
<tr>
<td>Ed. tables</td>
<td>Efficient editing of the lists, e.g. patent assignee names, is supported.</td>
</tr>
<tr>
<td>Using 2 or</td>
<td>One or two criteria can be edited and displayed in a table or diagram.</td>
</tr>
<tr>
<td>Visualize</td>
<td>Visualizations can be created quickly and easily. Table data are available in Excel format for post-processing.</td>
</tr>
<tr>
<td>Improve result/sample</td>
<td>ANALYZE PLUS should only be applied to the result of a search with an optimized search strategy. It can be used in combination with ANALYZE to treat and visualize a sample to obtain a new (and more relevant) one.</td>
</tr>
</tbody>
</table>

**Conclusion:** ANALYZE PLUS is a convenient menu-guided option of the STN Express retrieval software to create statistical tables and diagrams. It makes editing the tables (e.g. patent assignee names) easy. It is recommended to combine ANALYZE Plus with the ANALYZE command.

29.9 Using STNext

Any search result can be analyzed with menu navigation. Both a one-field analysis or a two-field analysis can be performed.

It is advisable to download the result of the analysis as a CSV file and use this file for further processing and visualization.
30 Monitoring patents

30.1 Introduction

By monitoring patents in patent databases it is possible to continuously gain information on intellectual property rights or progress of technology. In this section the information available in the patent databases with respect to monitoring patents is presented and various ways to perform current-awareness searches in these databases are shown.

Current-awareness searches are made to continuously monitor a subject field, company, or inventor for new patents or published patent applications. One benefit is that new intellectual property rights can be recognised in good time to take action against infringements, for example by filing an opposition within the opposition period. Another benefit is that the market can be monitored for example for the development of research priorities or emerging competition.

Various names are used for patent monitoring:
- Selective Dissemination of Information (SDI)
- Current Awareness Service (or Control or Information),
- Current Alert Services,
- Profile,
- Watch Services.

30.2 Types of search

- Monitoring a subject field (search by subject):
  - Search by classification
  - Search by text
  - Search by index terms
  - Checking new patents and utility models in the subject field for possible infringement
  - Monitoring technological trends
  - Monitoring companies active in the field (competitors or cooperation partners)
  - Monitoring intended markets

- Monitoring of competitors by name search:
  - Checking new patents and utility models of competitors for possible infringement
  - Monitoring the target markets of competitors
  - Monitoring competition research priorities

- Monitoring patent families:
  - Monitoring patent families for new members (Equivalents)
  - Monitoring patent procedures for grant, lapse, entry into the national phase, etc.
  - Monitoring designation countries

- Monitoring citations:
  - Where do our own patents get cited?
  - Checking for possible infringement
Types of search

30.3 The SDI command

Using the SDI command a ‘subscription’ for a periodical search in one or more databases can be set up. When SDI is entered you are prompted for all required parameters. The intended database must be open and there must be a search result or search query, i.e. an L number. This search query must not include any of the commands SELECT, ANALYZE, TRANSFER, FSORT, FSEARCH, or TRANSFER.

=> FILE I NPADOCDB

=> SDI
EN TER QUERY L # FOR SDI REQUEST OR (END): L1
EN TER UPDATE F I ELD CODE (UP), UPAA, UPFA, UPM, UPFL, UPCC, EDLS, UPBB, UPFE, EDPR,
ED, EDP, EDF, UPF, UPFP, UPFC, UPLB, UPLS OR ?:.
EN TER SDI REQUEST NAME, (AA040/S), OR END: IN L INE/S
EN TER COST CENTER (NONE) OR NONE:.
EN TER TITLE (NONE): I N L INE SKATES
EN TER METHOD OF DELIVERY (EMAIL), ONLINE OR RSS: RSS
EN TER EMAIL I D (1156K): ELKE.THOMAE@TU-ILMENAU.DE INTERNET
ELKE.THOMAE@TU-ILMENAU.DE INTERNET
RE CEIVE DELIVERY NOTIFICATION? (Y)/N: Y
ELIM I NATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN? Y/(N): Y
EN TER PRINT FORMAT (BIB,M) OR ?: A L L.M
HIGHLIGHT HIT TERMS? (Y)/N: Y
ARCH I VE ANSWERS? Y/(N): N
RE DI ST RIBUTE ANSWERS? Y/(N): N
EN TER MAXI MUM NUMBER OF HITS TO BE PR Int ERED PER RUN (100): 100
SORT SDI ANSWER SET (N)/Y?: N
EN TER SDI RUN FREQUENCY - (WEEKLY), MONTHLY, OR ?: MONTHLY
EN TER SDI EXPIRATION DATE ‘YYYYMMDD’ OR (NONE): NONE
RSS URL=https://stnweb.fiz-karlsruhe.de/cgi-bin/nph-stnrss?T9n9B9VVSco1nfKt2AYF
xBnP x 5(£EAmGdj Dyj) Q6NTzopM7OLycwj RSTZ@lyX8A521 nUqBsj Us6UdkU1cf0l
QUERY L1 HAS BEEN SAVED AS SDI REQUEST ‘IN L INE/S’

Note: To be able to set up a SDI you need a STNMAIL ID. You can get help with the following commands:

=> HELP SET MAIL ID
=> HELP MAIL
=> HELP READ
=> HELP SEND

30.3.1 Options to customize a SDI run

- Automatic numbering
- Delivery of search results: on-line, STN mail, Internet e-mail, RSS
  - Email, ending "internet": documents (preferably without patent images) will be sent in the email message. Note: Your mailbox should offer sufficient space.
  - Email, not ending "internet": links to the documents (RTF, PDF, HTML) will be delivered to your mailbox recommended for patent monitoring
  - RSS: a URL is displayed. This can be used with an RSS reader software. The documents can be delivered by RSS and e-mail at the same time.
  - If you wish to use a free or reduced format in an SDI search in order to first select interesting documents choose ONLINE as Method of Delivery. The answer set will be saved in the system. To display the documents use the free or reduced format first to select the wanted documents and display the selected documents in the desired format in the second step.
- Hit-term highlighting in the search results
- Elimination of already known answers from an earlier SDI run (Historical Duplicate Removal)

In patent databases the documents can be updated when new information arrives. When monitoring a subject field it is often better to eliminate already known answers, otherwise the documents will be delivered again with
every change (legal status, patent family, etc.). When monitoring a particular legal status or patent family this update is what is wanted and must not be eliminated.

Note: The old results will be kept for one year only, i.e. if an update occurs later than one year after the document was found for the first time it will be delivered again.

- Sorting the answers
- In case of ‘zero’ result (optional): notify on the ‘zero’ information
- Set the frequency of SDI runs
- Set a date for the SDI to expire
- Variable SDI frequency in some databases (CAPLUS: daily, weekly, biweekly)

### 30.3.2 Creating a SDI profile in STNext

To create a SDI profile select ‘Create an Alert’ from the menu in the History tab.
30.3.3 Displaying a list of SDI profiles

<table>
<thead>
<tr>
<th>NAME</th>
<th>CREATED</th>
<th>NOTES/TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INLINE/S</td>
<td>31 AUG 2012</td>
<td>SDI REQUEST FOR FILE INPADOCDB Inline Skates</td>
</tr>
</tbody>
</table>

30.3.4 Displaying a SDI profile

<table>
<thead>
<tr>
<th>NAME</th>
<th>CREATED</th>
<th>NOTES/TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INLINE/S</td>
<td>31 AUG 2012</td>
<td>SDI REQUEST FOR FILE INPADOCDB Inline Skates</td>
</tr>
</tbody>
</table>

COST CENTER: NONE
UPDATE QUALIFIER: UP
METHOD OF DELIVERY: RSS
RSS URL: https://stnweb.fiz-karlsruhe.de/cgi-bin/nph-stnrss?T9n90R9VVo1nfKt2AYFx8BPx_5fEAmjGjDytjQ6NTzopMTOLycwjRSTZ@iYXBAU2I_nUqBfjUs6UdkU1cf01
EMAIL ID(S): ELKE.THOMAE@TU-ILMENAU.DE.INTERNET
NOTIFICATION: YES
PRINT FORMAT: ALL.M
MAXIMUM NUMBER OF HITS TO BE DELIVERED: 100
HIGHLIGHTING: YES
DUPLICATE ELIMINATION: YES
SEND SDI WITH NO ANSWERS: YES
SDI RUN FREQUENCY: WEEKLY
DISPLAY QUERY WITH RESULTS: YES

30.3.5 Viewing SDI results

SDI results to be delivered ONLINE can be viewed with the ACTIVATE command. The first SDI result of the above profile would have the name INLINE01/A, the counter being incremented with every SDI run:

=> ACT INLINE01/A

Else the results are delivered automatically either by post, fax, or to the e-mail address and do not need to be viewed on-line.

30.3.6 SDI EDIT

A SDI profile can be edited with the SDI EDIT command. It is often easier to delete the old profile and issue a new one.

30.3.7 Editing a SDI profile in STNext

In STNext, the alerts are stored under My Files and can be displayed and edited.

30.3.8 Deleting an SDI profile

=> DELETE INLINE/S
DELETE INLINE/S? (Y)/N: Y
INLINE/S DELETED
30.4  Saved queries

The profiles for a monitoring search can also be saved on the STN host using the SAVE command or on the local computer using command files if you do not want to issue a SDI command to the STN host. There may be various reasons for this:

- The monitoring is not to be done at regular intervals,
- The monitoring is not to be done after each update of the database but at longer intervals,
- The query needs to be adapted to new requirements frequently,
- The search profile uses certain commands not allowed in an SDI, such as SELECT, ANALYZE, TABULATE, FOCUS, FSEARCH, or FSORT.

30.4.1  The SAVE command

The SAVE command can be used to save a search profile under a name as a query:

=> SAVE INLINE/Q

From time to time this query can then be run with the ACTIVATE command and linked to the chosen update field:

=> ACTIVATE INLINE/Q

L16          QUE  ABB=ON  L5 OR L15

=> S L16 AND UP>20111101
L17          25 L16 AND UP>20111101

=> D 1-25 TRIAL

30.5  Support for command files by STN software

With the help of the STN Express communication package or STN on the Web a search profile can be prepared off-line and later be used on-line.

30.5.1  The ‘Run command file’ function of STN Express and STNext

With this function a complete search profile can be prepared, saved and run. When there are system prompts during the execution (e.g. due to a command being incomplete or certain options of the SET command) the run is paused. The answers to the prompts may then be entered, manual input being ended by hitting the ‘END’ key or SUBMIT.

For this function, a number of commands can be used:

<table>
<thead>
<tr>
<th>Character</th>
<th>Example</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>*</td>
<td>* Command File</td>
<td>* introduces a comment</td>
</tr>
<tr>
<td>=&gt;</td>
<td>=&gt; s acid and rain</td>
<td>=&gt; is a shortcut for SEND – the rest of the line will be sent to the host</td>
</tr>
<tr>
<td>_lnum</td>
<td>=&gt; s acid and rain_ _lnum</td>
<td>The resulting L number will be saved to the variable _lnum for later use. The variable name must begin with an underscore.</td>
</tr>
<tr>
<td>{}</td>
<td>=&gt; sel{}</td>
<td>Stop the script run in order to manually enter data, e.g. the last E number.</td>
</tr>
</tbody>
</table>

30.5.1.1  Example: Command file for SDI ‘Producers of inline skates’, INPADOCDB database

```plaintext
\* SDI Inline-Skates, INPADOCDB
=> S A63C0017-04+NT/IPC\_ IPC
=> S (NORDICA)\_PA,PAS\_ NAME1
=> S (BENETTON (S) SPORT?)\_PA,PAS\_ NAME2
=> S (DEKA(S)PROD?)\_PA,PAS\_ NAME3
=> S (SALOMON)\_PA,PAS\_ NAME4
=> S (MGM (S)(SPA))\_PA,PAS\_ NAME5
=> S (SKI\_L S (S) ROSSI\_GNOL)\_PA,PAS\_ NAME6
=> S _NAME1\_ NAME6>\_ NAME
=> S _IPC OR\_NAME1>\_RESULT
```

Some syntactic errors in the search profile can be found by the software. If an error is seen after the ‘Run’ function has been started (e.g. a typo) the execution can be stopped. After the file has been edited execution can be re-started. It
Types of search

is a good idea to test-run the script in the (free) STNGUIDE database to find any errors concerning the STN command language (e.g. mismatched brackets, errors in the definition of variables, typos in commands or options, etc.).

In STNext scripts can be created, edited, and run via the menu:

30.5.2 The command window of STN Express and STNext

In STN Express from version 4 and STNext, the search profile prepared off-line can be displayed in the command window during the on-line session. In the command window only commands of the STN command language may be used, the STN Express script language or any variables will not work.

Each command line can be issued individually, be edited during the on-line session or additional command lines can be entered or lines be left out or issued repeatedly. It is also possible to run the search profile without any interruption.

30.5.3 STN on the WEB

In STN on the Web a search profile prepared off-line can be copied to the command window by Copy/Paste (resize the window first). This should usually be short profiles which are then started by the SUBMIT button. The command lines cannot be issued one by one. For longer search profiles it is advisable to load the text file using the ‘Upload Command File’ function and start it then. In this case the command lines may even be issued one at a time. Special characters, e.g. for variables, cannot be used.

30.6 Patent types and country coverage

<table>
<thead>
<tr>
<th>Database</th>
<th>Patent types</th>
<th>Countries</th>
<th>Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>International patent databases</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DWPI</td>
<td>Patent applications and granted patents, utility models, Research Disclosure</td>
<td>40+ countries, incl. EP, WO</td>
<td>Weeks (depending on country)</td>
</tr>
<tr>
<td>INPADOCDB/INPAFAMDB</td>
<td>Patent applications and granted patents, utility models, legal status data</td>
<td>95 countries, incl. EP, WO</td>
<td>Days to weeks (depending on country)</td>
</tr>
<tr>
<td><strong>Regional patent databases</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFPFULL</td>
<td>Patent applications and granted patents</td>
<td>EP</td>
<td>Some days</td>
</tr>
<tr>
<td>PCTFULL</td>
<td>Patent applications</td>
<td>WO</td>
<td>Some days</td>
</tr>
</tbody>
</table>
### Guide to STN Patent Databases

<table>
<thead>
<tr>
<th>Database</th>
<th>Patent types</th>
<th>Countries</th>
<th>Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National patent databases</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUPATFULL</td>
<td>Patent applications and granted patents</td>
<td>AU</td>
<td>4 days</td>
</tr>
<tr>
<td>CANPATFULL</td>
<td>Patent applications and granted patents</td>
<td>CA</td>
<td>1-2 weeks</td>
</tr>
<tr>
<td>CNFULL</td>
<td>Patent applications and granted patents, utility models</td>
<td>CN</td>
<td>1-3 weeks</td>
</tr>
<tr>
<td>DEFULL</td>
<td>Patent applications and granted patents, utility models</td>
<td>DE</td>
<td>10 days</td>
</tr>
<tr>
<td>FRFULL</td>
<td>Patent and utility model applications</td>
<td>FR</td>
<td>1-2 weeks</td>
</tr>
<tr>
<td>GBFULL</td>
<td>Patent applications</td>
<td>GB</td>
<td>4 days</td>
</tr>
<tr>
<td>IFICLS</td>
<td>Legal status data</td>
<td>US</td>
<td></td>
</tr>
<tr>
<td>INFULL</td>
<td>Patent applications and granted patents</td>
<td>IN</td>
<td>4 days</td>
</tr>
<tr>
<td>JAPIO</td>
<td>Patent applications (unexamined)</td>
<td>JP</td>
<td>Approx. 4 months</td>
</tr>
<tr>
<td>KOREAPAT</td>
<td>Patent applications (unexamined), granted patents</td>
<td>KR</td>
<td>3 months</td>
</tr>
<tr>
<td>PATDPAFULL</td>
<td>Patent applications and granted patents, Utility model publications Translations of EP documents (T2, T3, T4)</td>
<td>DE</td>
<td>DE: 0 days</td>
</tr>
<tr>
<td><strong>Field-specific databases</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DGENE</td>
<td>Patent publications on nucleic and peptide sequences</td>
<td>See DWPI</td>
<td>Approx. 4 weeks to some months</td>
</tr>
<tr>
<td>DPCI</td>
<td>Patent applications and granted patents, examiner’s citations</td>
<td>23 countries, incl. EP, WO</td>
<td>See DWPI; citing patents: 3-6 weeks</td>
</tr>
<tr>
<td>PCTGENE</td>
<td>WO publications on nucleic and amino acid sequences</td>
<td>WO</td>
<td>Some days</td>
</tr>
<tr>
<td>RDISCLOSURE</td>
<td>Technical disclosure of inventions published in the ‘Research Disclosure’ journal</td>
<td>RD</td>
<td>14 days</td>
</tr>
<tr>
<td>USGENE</td>
<td>US patent publications on nucleic acids and peptide sequences</td>
<td>US</td>
<td>7 days</td>
</tr>
</tbody>
</table>

### 30.7 SDI frequency

When creating an SDI profile with the SDI command you can choose from a number of different SDI frequencies in some of the databases, i.e. at what interval the SDI run is to be executed.

<table>
<thead>
<tr>
<th>Database</th>
<th>Frequencies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>International patent databases</strong></td>
<td></td>
</tr>
<tr>
<td>DWPI</td>
<td>Every update (every 3-4 days), (default)</td>
</tr>
<tr>
<td></td>
<td>Weekly</td>
</tr>
<tr>
<td></td>
<td>Monthly</td>
</tr>
<tr>
<td>INPADOCDB</td>
<td>Every update (weekly), (default)</td>
</tr>
<tr>
<td></td>
<td>Monthly</td>
</tr>
<tr>
<td>HCA</td>
<td>Biweekly</td>
</tr>
<tr>
<td>HCAPLUS</td>
<td>Every update (daily)</td>
</tr>
<tr>
<td></td>
<td>Weekly (default)</td>
</tr>
<tr>
<td></td>
<td>Biweekly</td>
</tr>
<tr>
<td><strong>Regional patent databases</strong></td>
<td></td>
</tr>
<tr>
<td>EPFULL</td>
<td>Every update (weekly)</td>
</tr>
<tr>
<td>PATDPA</td>
<td>No updates from week 25/2011</td>
</tr>
<tr>
<td>PCTFULL</td>
<td>Every update (weekly)</td>
</tr>
</tbody>
</table>
### Types of search

<table>
<thead>
<tr>
<th>Database</th>
<th>Frequencies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>National patent databases</strong></td>
<td></td>
</tr>
<tr>
<td>AUPATFULL</td>
<td>Every update (weekly), (default)</td>
</tr>
<tr>
<td></td>
<td>Monthly</td>
</tr>
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### 30.8 Information on timeliness: HCAPLUS and IFIALL

Patents are added to the CA/HCA/ZCA and CAPLUS/HCAPLUS/ZCAPLUS databases with a delay of some days after publication. At that point the indexing is likely not to be complete, it may take up to two months until a document is completely indexed. For a number of countries, namely US, EP, DE, JP, WO, GB, and FR the current status of the indexing process can be established.

A number of applications are possible:

- NEWS FILE: Information on the Updating and Patent Currency
- Include to a DISPLAY or PRINT: DISPLAY CURRENCY
- Include into SDI

More information on updates can be found on:


The IFIALL database is updated two times per week. Documents are entered between one day and one week after publication. Use NEWS FILE to see information on updates.
### 30.9 Search fields for awareness searches

#### 30.9.1 Overview

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30.9.2 Using the /UPAB fields in DWPI and PATDPA

In the DWPI database it may occur that documents are entered without an abstract and abstracts are added at a later date or not at all. In PATDPA the same problem exists: The abstracts or main claims of certain document types are added at a later date, for some document types no abstracts or claims are entered (DECE: serial number for EP applications with DE designation, DET1: translation of WO documents).

**When to prefer /UP over /UPAB:** Documents without an abstract will be found. All changes are monitored. In case of a free text search it may be that documents relevant to the search are not retrieved: On date A (no abstract available) they are not found because the words searched do not occur in the text available, on date B (abstract available) they are not found due to a new UP date used.

**When to prefer /UPAB over /UP:** A document will only be retrieved once an abstract is available. Hence this field should be preferred with free text searches. Only changes to the abstract or main claim are considered. Documents not having an abstract will not be retrieved.

30.9.3 Linked update fields / Linked SDI

In addition to the /ED and /UP fields there are fields covering only certain types of data entered or updated. With the help of these fields a current awareness search can be targeted more precisely (e.g. UPP, UPAB).

30.9.3.1 Linking the PI field with /UPP

In the DWPI database it is possible to link a search query concerning the PI field (PN, PK) to the respective update field by using (P) proximity. This way the search can be narrowed further. For example, using the command

```
=> S EPB#/PK (P) (20101112-20101211)/UPP
```

in DWPI will narrow the search to updates in the PI field through use of UPP and there to updates for EP granted patents only through use of (P) proximity.

```
=> FIL WPIND

=> S EPB#/PK AND (20101112-20101211)/UPP
  1027681 EPB#/PK
  226136 (20101112-20101211)/UPP
  (20101112-20101211)/UPP
L1   10685 EPB#/PK AND (20101112-20101211)/UPP

=> S EPB#/PK (P) (20101112-20101211)/UPP
  1027681 EPB#/PK
  226136 (20101112-20101211)/UPP
  (20101112-20101211)/UPP
L2   4829 EPB#/PK (P) (20101112-20101211)/UPP
```

In the CAPLUS database the UPP field can be linked to a search query by (L) proximity:

```
=> S DE/PC (L) UPP>20101213
```

30.9.3.2 Linking the legal status with /UPLS

When using (L) proximity with the /UPLS field in INPADOCDB/INPAFAMDB only legal status entries of that particular date will be retrieved.

```
=> S EP17P/LSC(L)20101202/UPLS
L5      2353 EP17P/LSC(L)20101202/UPLS

=> S EP17P/LSC AND 20101202/UPLS
L6      235609 EP17P/LSC AND 20101202/UPLS
```

Linking the legal status code with the UPLS update date is also useful in EPFULL (use (P) proximity):

```
=> FIL EPFULL

=> S SONY/PA AND EPB235/LSC (P) UPLS>20100909
L3      21 SONY/PA AND EPB235/LSC (P) UPLS>20100909
```
Guide to STN Patent Databases

30.9.3.3  Linking bibliographical details with various Update fields in INPADOCDB/INPAFAMDB

Owing to the database structure in INPADOCDB (each publication in the national succession of publications forms one level/segment in the database document) it is possible to link bibliographical details to Update fields. Using (L) proximity it is possible to limit the search by bibliographical detail to one publication level. This also works in INPAFAMDB. These fields can be used: /EDP, /ED, /UP, /UPBB, /UPCC (see table above).

A number of useful examples are shown below:

<table>
<thead>
<tr>
<th>Example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPB#/pk(l)ED&gt;20100101</td>
<td>For EP granted</td>
</tr>
<tr>
<td>granted/stal(l)ED&gt;20100101</td>
<td>For all granted</td>
</tr>
<tr>
<td>(au or nz)/pc(l)edp&gt;20100101</td>
<td>For priority applications from AU and NZ</td>
</tr>
<tr>
<td>sony/lspa(l)upls&gt;20100101</td>
<td>For legal status changes concerning SONY</td>
</tr>
<tr>
<td>a6lk/ipc,epc(l)upcc&gt;20100101</td>
<td>For changes to IPC or EPC</td>
</tr>
</tbody>
</table>

30.9.4  Dynamic queries

To use this 'Linked SDI' in automatic SDI runs this issue was to be solved:

The update field used when the SDI is set up is linked to the search queries by AND – but a proximity operator is needed.

A symbolic search field of the form ‘update_field_code/LAST’ was introduced. This symbolic search field is edited by the Messenger system to a range search on the data of the latest Update range in the field given. To create an automatic SDI in DWPI linking the UPP field by (P) proximity to the PK field the appropriate commands would be:

```plaintext
=> S SIEI/PACO AND EPB#/PK(P)UPP/LAST
L4 1047 SIEI/PACO AND EPB#/PK(P)UPP/LAST

=> SDI
ENTER QUERY L# FOR SDI REQUEST OR (END): L4
ENTER UPDATE Field CODE (UP), ED, UPP, UPAB, UPCR, EDCR, UPWX, UPB, UPKW, UPA, UPTC, UPEQ OR ?: UPP

Increasing queries can currently be created in the DWPI, DPCI, and INPADOCDB/INPAFAMDB databases.

Note: If /LAST is used in a manual search the past year is automatically used in order to allow testing and creating the SDI profile. /LAST cannot be used to manually monitor publications.

30.9.5  Notes on INPADOCDB/INPAFAMDB

30.9.5.1  Display of changes to the document

The CHG field. The CHG display field indicates fields where changes have occurred. The contents of the field can even be searched. The added letters mean: A = AMEND / MODIFIED and C = CHANGED / NEW.

```plaintext
=> E E/CHG
E1 38756 DS A/CHG
E2 93 DS C/CHG
E3 0... E/CHG
E4 469033 EPC A/CHG
E5 159166 EPC C/CHG
E6 14475 IC A/CHG
E7 97 IC C/CHG
E8 151806 ICO A/CHG
E9 109573 ICO C/CHG
E10 440 IDT A/CHG
E11 245 IDT C/CHG
E12 42344 IN A/CHG

=> S IN C/CHG AND PA C/CHG AND EPC C/CHG
L1 397 IN C/CHG AND PA C/CHG AND EPC C/CHG

=> D BIB.M CHG.M
L1 Answers 1 of 397

INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
Types of search

For the following fields the changes are indicated:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABDE</td>
<td>Abstract in German</td>
</tr>
<tr>
<td>ABEN</td>
<td>Abstract in English</td>
</tr>
<tr>
<td>ABES</td>
<td>Abstract in Spanish</td>
</tr>
<tr>
<td>ABFR</td>
<td>Abstract in French</td>
</tr>
<tr>
<td>ABOL</td>
<td>Abstract in original language</td>
</tr>
<tr>
<td>ABOR</td>
<td>Abstract in original non-ASCII character set</td>
</tr>
<tr>
<td>AI</td>
<td>Application information</td>
</tr>
<tr>
<td>AIOR</td>
<td>Application information, original form</td>
</tr>
<tr>
<td>CIT</td>
<td>Citations</td>
</tr>
<tr>
<td>DF</td>
<td>Date in Force (Advertizing German Utilities)</td>
</tr>
<tr>
<td>DS</td>
<td>Designated States</td>
</tr>
<tr>
<td>EPC</td>
<td>European Patent Classification (ECLA A-H)</td>
</tr>
<tr>
<td>IC</td>
<td>International Patent Classification version 1-7</td>
</tr>
<tr>
<td>ICO</td>
<td>In Computer Only (ECLA K-Y)</td>
</tr>
<tr>
<td>IDT</td>
<td>Indeling der Techniek</td>
</tr>
<tr>
<td>IN</td>
<td>Inventor</td>
</tr>
<tr>
<td>INOR</td>
<td>Inventor, original character set</td>
</tr>
<tr>
<td>INS</td>
<td>Inventor, standardized</td>
</tr>
<tr>
<td>IPC</td>
<td>International Patent Classification (current and old)</td>
</tr>
<tr>
<td>NCL</td>
<td>National Patent Classification</td>
</tr>
<tr>
<td>PA</td>
<td>Patent Assignee</td>
</tr>
<tr>
<td>PAOR</td>
<td>Patent Assignee, original character set</td>
</tr>
<tr>
<td>PAS</td>
<td>Patent Assignee, standardized</td>
</tr>
<tr>
<td>PI</td>
<td>Patent information</td>
</tr>
<tr>
<td>PRAI</td>
<td>Priority information</td>
</tr>
<tr>
<td>PRAO</td>
<td>Priority information, original form</td>
</tr>
<tr>
<td>TI</td>
<td>Title</td>
</tr>
<tr>
<td>TIOR</td>
<td>Title, original character set</td>
</tr>
</tbody>
</table>

30.9.5.2 Displaying changes to the patent family

Patent families may have to be combined into one e.g. if several national families (e.g. US) are combined into a new family by a EP or a WO application. A patent family may have to be divided if due to errors, e.g. in the priority numbers, certain members were wrongly entered into the family. In both cases it can happen that family members are missing in a monitoring search result. To prevent this the field UPFC (UPdate Family Changed) was introduced, which is displayed in the BIB, STD, ALL, MAX, FFAM, UPALL and BRIEF display formats. After each SDI search run the new documents should be reviewed or (by a search) be checked whether a change to the family is displayed. If that is the case, the complete family should be reviewed:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN</td>
<td>59373185 INPADOCDB ED 20090917 EW 200938 UP 20090917 UW 200938</td>
</tr>
<tr>
<td>FN</td>
<td>38377924 UPFC 20091001</td>
</tr>
</tbody>
</table>
Guide to STN Patent Databases

TI Networked gaming system communication protocols and methods.
TL English
IN KELLY BRYAN M.; LOCKARD DENNIS; TALLCOTT JEFFREY; KROECKEL JOHN; SOLITERMAN GENNADY; RUPANAGUDI REDDY
INS KELLY BRYAN M; LOCKARD DENNIS; TALLCOTT JEFFREY; KROECKEL JOHN; SOLITERMAN GENNADY; RUPANAGUDI REDDY
PAS KELLY BRYAN M; LOCKARD DENNIS; TALLCOTT JEFFREY; KROECKEL JOHN; SOLITERMAN GENNADY; RUPANAGUDI REDDY
DT Patent
PI US 20090227363 A1 20090910 English
PIT USA1 FIRST PUBLISHED PATENT APPLICATION [FROM 2001 ONWARDS]
DAV 20090910 unexamined - printed - without grant
STA PRE-GRANT PUBLICATION
AI US 2008-291842 A 20081112
AII USA Patent application
PRAI US 2008-291842 A 20081112 (USA, 20090917, Y)
US 2007-938644 A 20071112 (USA2, 20090326, Y)
US 2007-938666 A 20071112 (USA2, 20080626, N)
US 2006-470606 A 20060906 (USA2, 20070322, Y)
US 2004-943771 A 20040916 (USA2, 20070412, Y)
US 2006-865664P P 20061114 (USP, 20080626, Y)
US 2007-987234P P 20071112 (USP, 20090824, Y)
US 2007-987274P P 20071112 (USP, 20090824, Y)
US 2007-987259P P 20071112 (USP, 20090824, Y)
US 2007-987266P P 20071112 (USP, 20090824, Y)
US 2007-987402P P 20071112 (USP, 20090604, Y)
PRAIT USA Patent application
USA2 Prior application claimed for continuation in part
USP Provisional application
AN 38377924 INPAFAMDB UPFB 20091001 UWF 200940
UPFC 20091001
TI SISTEMA Y METODO DE INTERFAZ DE USUARIO.
- Prize redemption system for games.
- Gaming and prize redemption system.
- Prize redemption system for games executed over a wide area network.
- Progressive-type prize awarding scheme.

30.9.6 Monitoring patent families in INPADOCDB/INPAFAMDB—Family SDI

In INPADOCDB/INPAFAMDB it is possible to monitor patent families (manually or automatically). The fields for this see in the table above. Any event occurring to the patent family can be found this way, from the first entry of a family member to changes to the legal status. Here are some notes on the update fields:

If certain update fields are set the same date will automatically be entered in other update fields (INPADOCDB):

<table>
<thead>
<tr>
<th>EDF</th>
<th>→ UPFD, UPFP, UPFB, UPFE, UPFA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPFD</td>
<td>→ UPFP, UPFB, UPFE, UPFA</td>
</tr>
<tr>
<td>UPFP</td>
<td>→ UPFB, UPFE, UPFA</td>
</tr>
<tr>
<td>UPFB</td>
<td>→ UPFA</td>
</tr>
</tbody>
</table>

Using DISPLAY UPALL the table of updates can be displayed for every document.

Thanks to the database structure of INPAFAMDB it is easy to monitor patent families in this database. All update codes in this database relate to the patent family.

In INPADOCDB both record-based and family-based monitoring can be done. The following table shows the relevant fields:

<table>
<thead>
<tr>
<th>New family (new family number FN)</th>
<th>Record (INPADOCDB)</th>
<th>Family (INPADOCDB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New family (new family number FN)</td>
<td>EDF</td>
<td></td>
</tr>
<tr>
<td>Merged or split families</td>
<td></td>
<td>UPFC</td>
</tr>
<tr>
<td>New record (member)</td>
<td>EDP</td>
<td>UPFD</td>
</tr>
<tr>
<td>New document</td>
<td>ED</td>
<td>UPFP</td>
</tr>
<tr>
<td>Update of BIB + IND</td>
<td>UP</td>
<td>UPFB</td>
</tr>
<tr>
<td>Update of BIB</td>
<td>UPBB</td>
<td>UPBB</td>
</tr>
<tr>
<td>Update of IND</td>
<td>UPCC</td>
<td>UPCC</td>
</tr>
<tr>
<td>Update of the legal status (LS)</td>
<td>UPLS</td>
<td>UPFL</td>
</tr>
</tbody>
</table>
Types of search

<table>
<thead>
<tr>
<th></th>
<th>Record (INPADOCDB)</th>
<th>Family (INPADOCDB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New document or LS</td>
<td>EDLS</td>
<td>UPFE</td>
</tr>
<tr>
<td>All updates / changes</td>
<td>UPM</td>
<td>UPFA</td>
</tr>
</tbody>
</table>

The display formats for updates only show data of the current update week. ‘Element billing’ applies to all these formats, i.e. you will be charged only for data that actually appear in the display.

<table>
<thead>
<tr>
<th>FFAMUP</th>
<th>All BIB and/or LSUP of family members updated with the current update, weekly SDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFAMUP4</td>
<td>All BIB and/or LSUP of family members updated with the current update, monthly SDI</td>
</tr>
<tr>
<td>FFAMUP.PC</td>
<td>Country specific FFAMUP, e.g. FFAMUP.EP (only for these countries: PC=AT AU BE CA CH DE DK EP ES FI FR GB GR IE IL IT JP HU NL NO SE US WO)</td>
</tr>
<tr>
<td>FFAMED</td>
<td>New publications and/or LSUP of a patent family, weekly SDI</td>
</tr>
<tr>
<td>FFAMED4</td>
<td>New publications and/or LSUP of a patent family, monthly SDI</td>
</tr>
<tr>
<td>FFAMED.PC</td>
<td>Country specific FFAMED, e.g. FFAMED.US (only for these countries: PC=AT AU BE CA CH DE DK EP ES FI FR GB GR IE IL IT JP HU NL NO SE US WO)</td>
</tr>
<tr>
<td>LFAMUP</td>
<td>PI (Publication Information) and LSUP (legal status changed) of the current update week of a patent family, weekly SDI</td>
</tr>
<tr>
<td>LFAMUP4</td>
<td>PI (Publication Information) and LSUP (legal status changed) of the current update week of a patent family, monthly SDI</td>
</tr>
<tr>
<td>LFAMUP.PC</td>
<td>Country specific LFAMUP, e.g. LFAMUP.FR (only for these countries: PC=AT AU BE CA CH DE DK EP ES FI FR GB NL NO SE US WO)</td>
</tr>
<tr>
<td>UPALL</td>
<td>Table of update dates</td>
</tr>
</tbody>
</table>

The update fields needed for a Family SDI are available if any update has occurred to the patent family since the introduction of this feature (9/2004). (This may be important in a retrospective search if you wish to use any of the UP fields.)

=> D BIB UPALL

| AN  | 53039753 INPADOCDB ED 20070505 EW 200718 UP 20070505 UW 200718 |
| TL  | German; English; French |
| IN  | SOWA, HANS CHRISTOPHER; MCDONALD, DANIEL J.; CHATER-LEA, DAVID J.; KREMSKE, RANDY; PAPPAS, SCOTT J.; JOHUR, JASON; NEWKIRK, DENNIS; ANDERSON, WALTER F.; WALTON, GLENN BRIAN |
| PA  | MOTOROLA, INC. |
| PAS | MOTOROLA INC, US |
| DT  | Patent |
| PI  | EP 1777870 A3 20070502 English |
| PBT | EPA3 SEARCH REPORT |
| DAV | 20070502 supplemental - srep-reference |
| STA | PRE-GRANT PUBLICATION |
| DS  | R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR |
| AI  | EP 2006-26909 A 20020118 |
| AIT | EPA Patent application |
| PRAI| US 2001-785849 A 20010216 (USA) |
| EP  | 2002-720815 A 20020118 (EPA3, 20070419) |
| PRAIT| USA Patent application |
| EPA3 Prior application claimed for a division |
Guide to STN Patent Databases

AN 53039753
UP 20070505
ED 20070505
EDP 20070426
EDF 20070222
UPFD 20070426
UPFP 20070505
UPFB 20070505
UPBB 20070505
UPCC 20070505
=> D FAM

L13  ANSWER 1 OF 129     INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN

PATENT FAMILY INFORMATION
AN 53039753 INPADOCDB

+-------------------+-------------------+
| EP 2002-720815 | A 20020118 |
| EP 2006-26909   | A 20020118 |
| EP 2006-26910   | A 20020118 |
| EP 2006-26911   | A 20020118 |
| EP 2006-26912   | A 20020118 |
| EP 2006-26913   | A 20020118 |
| US 2001-785849 | A 20010216 |
| AT 2002-720815 | T 20020118 |
| AU 2002-251789 | A 20020118 |
| DE 2002-60218289 | A 20020118 |
| EP 2002-720815 | A 20020118 |
| EP 2006-26909   | A 20020118 |
| EP 2006-26910   | A 20020118 |
| EP 2006-26912   | A 20020118 |
| EP 2006-26913   | A 20020118 |
| IL 2002-157049  | A 20020118 |
| US 2001-785849 | A 20010216 |
| WO 2002-US1479 | W 20020118 |
| AT 2002-720815 | T 20020118 |
| AU 2002-251789 | A 20020118 |
| DE 2002-60218289 | A 20020118 |
| EP 2002-720815 | A 20020118 |
| IL 2002-157049  | A 20020118 |
| WO 2002-US1479 | W 20020118 |
| WO 2002-US1479 | W 20020118 |
| WO 2002-US1479 | W 20020118 |
+-------------------+-------------------+

=> D FFAMUP

L13  ANSWER 1 OF 129     INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN

AN 53039753 INPADOCDB ED 20070426 EW 200717 UP 20070505 UW 200718
TI Verfahren und Vorrichtung zur Speicherung und Verteilung von
Verschlüsselungsschlüsseln.
Method and apparatus for storing and distributing encryption keys.
Procede et dispositif pour stocker et distribuer des clés de cryptage.
TL German; French
IN SOWA, HANS CHRISTOPHER; MCDONALD, DANIEL J.; CHATER-LEA, DAVID J.;
KREMKE, RANDY; PAPPAS, SCOTT J.; JOHUR, JASON; NEWKIRK, DENNIS;
ANDERSON, WALTER F.; WALTON, GLENN BRIAN
INS SOWA HANS CHRISTOPHER, US; MCDONALD DANIEL J., US;
CHATER-LEA DAVID J., GB; KREMKE RANDY, US; PAPPAS SCOTT J., US;
JOHUR JASON, GB; NEWKIRK DENNIS, US; ANDERSON WALTER F., US;
WALTON GLENN BRIAN, GB
PA MOTOROLA, INC.
Types of search

PAS MOTOROLA INC, US
DT Patent
PI EP 1777870 A2 20070425 English
PIT EP3 APPLICATION PUBLISHED WITHOUT SEARCH REPORT
DAV 20070425 unexamined printed without grant
STA PRE-GRA NT PUBLI CAT ION
DS R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
AI EP 2006-26909 A 20020118
A1T EPA Patent application
PRAI US 2001-785849 A 20010216 (USA)
EP 2002-720815 A 20020118 (EPA3, 20070419)
PRAIT EPA3 Patent application
EPA3 Prior application claimed for a division
IPCI H04L0009-08 [I,A]; H04Q0007-38 [I,A]; H04L0009-08 [I,C*]; H04Q0007-38 [I,C*]
IPCR H04L0029-06 [I,A]; H04Q0007-28 [N,A]; H04L0029-06 [I,C*]; H04Q0007-28 [N,C*]
EPC H04Q0007-38S; H04L0009-08B; H04L0009-32R; H04L0029-06C6B; H04L0029-06C6C2; H04W0006-02; H04W0006-06
ICO T04L0029-06C6D6; T04Q0007-28; T04Q0007-38A; T04W0050:04T
FA AI; AN; DAV; DS; DT; ED; EPC; EW; ICO; IN; INS; IPC; IPCI; IPCR; LA; PA;
PAS; PI; PIT; PRAI; REN; REP; REXP; TI

CHG CIT A

AN 53039753 INPADOC DB ED 20070505 EW 200718 UP 20070505 UW 200718
TI Verfahren und Vorrichtung zur Speicherung und Verteilung von
Verschlüsselungsschlüsseln.
Method and apparatus for storing and distributing encryption keys.

TL German; English; French

IN SOWA, HANS CHRISTOPHER; MCDONALD, DANIEL J.; CHATER-LEA, DAVID J.;
KREMSE, RANDY; PAPPAS, SCOTT J.; JOHUR, JASON; NEWKIRK, DENNIS;
ANDERSON, WALTER F.; WALTON, GLENN BRIAN

INS SOWA HANS CHRISTOPHER, US; MCDONALD DANIEL J, US; CHATER-LEA DAVID J, GB;
KREMSE RANDY, US; PAPPAS SCOTT J, US; JOHUR JASON, GB; NEWKIRK DENNIS,
US; ANDERSON WALTER F, US; WALTON GLENN BRIAN, GB

PA MOTOROLA, INC.
PAS MOTOROLA INC, US
DT Patent
PI EP 1777870 A3 20070502 English
PIT EP3 SEARCH REPORT
DAV 20070502 supplemental-search-reference
STA PRE-GRA NT PUBLI CAT ION
DS R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
AI EP 2006-26909 A 20020118
A1T EPA Patent application
PRAI US 2001-785849 A 20010216 (USA)
EP 2002-720815 A 20020118 (EPA3, 20070419)
PRAIT EPA3 Patent application
EPA3 Prior application claimed for a division
IPCI H04L0009-08 [I,A]; H04Q0007-38 [I,A]; H04L0009-08 [I,C*]; H04Q0007-38 [I,C*]
IPCR H04L0029-06 [I,A]; H04Q0007-28 [N,A]; H04L0029-06 [I,C*]; H04Q0007-28 [N,C*]
EPC H04Q0007-38S; H04L0009-08B; H04L0009-32R; H04L0029-06C6B; H04L0029-06C6C2; H04W0006-02; H04W0006-06
ICO T04L0029-06C6D6; T04Q0007-28; T04Q0007-38A; T04W0050:04T
FA AI; AN; DAV; DS; DT; ED; EPC; EW; ICO; IN; INS; IPC; IPCI; IPCR; LA; PA;
PAS; PI; PIT; PRAI; REN; REP; REXP; TI

LEGAL STATUS
AN 53039753 INPADOC DB
20070502 EPAPK + DESIGNATED CONTRACTING STATES:
EP A3
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
200718
20070502 EPRIC1
CLASSIFICATION (CORRECTION)
H04L 9/08 20060101AFI 20070314BHEP
200718
Guide to STN Patent Databases

20070502 EPRIC1   CLASSIFICATION (CORRECTION)
H04Q 7/38  20060101ALI 20070328BHEP
200718.................................20070505

3 priorities, 12 applications, 16 publications

=> D FFAMUP.US

If there are no data in this display nothing was updated in the current update week. There will be no charge.

=> D LFAMUP.EP

L13   ANSWER 1 OF 129   INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
AN  53039753 INPADOCDB ED 20070426 EW 200717 UP 20070505 UW 200718
PI  EP 1777870   A2 20070425

AN  53039753 INPADOCDB ED 20070505 EW 200718 UP 20070505 UW 200718
PI  EP 1777870   A3 20070502

LEGAL STATUS  CURRENT UPDATE
AN  53039753 INPADOCDB
20070502 EPAK  + DESIGNATED CONTRACTING STATES:
   EP  A3
   AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
   200718.................................20070505

AN  52983185 INPADOCDB ED 20070419 EW 200716 UP 20070419 UW 200717
PI  EP 1775876   A2 20070418

LEGAL STATUS  CURRENT UPDATE
AN  52983185 INPADOCDB
20070502 EPRIC1   CLASSIFICATION (CORRECTION)
H04Q 9/08  20060101ALI 20070314BHEP
200718.................................20070505

20070502 EPRIC1   CLASSIFICATION (CORRECTION)
H04Q 7/38  20060101ALI 20070328BHEP
200718.................................20070505

In the above example FFAMUP and FFAMED show the same data because this is a new EP publication (European Application) and not an update to an existing publication.

This table shows which information is displayed after a particular update:

<table>
<thead>
<tr>
<th>Family Updates</th>
<th>FFAMUP</th>
<th>FFAMED</th>
<th>Family SDI Display Formats</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPA1 (new record + LS entry)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>WOA2 (updated)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPB1 (LS update)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>US (updated)</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WO (LS update)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>DE (new record)</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

30.9.7 Using the Update fields in special cases

It is possible that a first publication of an invention that is entered in the INPADOCDB/INPAFAMDB databases misses certain details (e.g. IPC codes, patent assignee name). If such documents need to be present in the SDI results do not
Types of search

use the fields marking the first entry of a patent family, e.g. /EDP, but rather use either /ED (new national publications) or one of the /UP fields (update of bibliographical details, including IPC).

In an SDI on document basis in the INPADOCDB database /ED or /UP should be used as the update field rather than /EDP. As all publications of a family appear in the SDI results in this case the question “ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN?” should be answered YES when the SDI query is created (i.e. elimination of duplicates). (However, the documents are available to the system for this elimination for one year only. If the next publication is issued more than one year later it will show in the SDI results again.)

In an SDI on family basis in INPADOCDB or in an SDI in INPAFAMDB one of the /UP fields should be used rather than /EPF. The “ELIMINATE PREVIOUSLY SEEN ANSWERS...” question (elimination of duplicates) should be answered NO in this case because otherwise later family members will be lost.

Here are a few known problem cases:

- Some WO publications have no IPC codes. The codes will be entered later and the documents concerned are updated. In order not to lose these documents in a document based SDI in the INPADOCDB database the /UP field should be used and the question “ELIMINATE PREVIOUSLY SEEN ANSWERS...” should be answered NO.
  In a family based SDI use one of the UP fields and answer NO to the eliminate duplicates question.

- Some countries publish the fact that an application was made without actually publishing a document. In INPADOCDB these pseudo-documents receive the code D0 (e.g. GB-D0, IL-D0, NO-D0, SE-D0). However, the records do not contain all the data, in particular the IPC is often missing. If such a D0 record is the first record of a patent family the whole patent family, including later publications in other countries, will be lost in a SDI using a combination of IPC and the /EDF or /EDPR field. If /EDP is used any later national publications would be lost.
  When monitoring individual documents the /ED field should be used (rather than /EDP).
  In a family based SDI in the INPADOCDB database or in the INPAFAMDB database one of the /UP fields should be used rather than /EDF, too.

However, usually these D0 records contain the Patent assignee name. So it is possible to perform a name search on this base:

<table>
<thead>
<tr>
<th>AN</th>
<th>53423387</th>
<th>INPADOCDB</th>
<th>ED 20070705</th>
<th>EW 200727</th>
<th>UP 20070705</th>
<th>UW 200727</th>
</tr>
</thead>
<tbody>
<tr>
<td>TI</td>
<td>Method for selecting a set of remote user terminals in a data communications network.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TL</td>
<td>English</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>KNÖTT, ANDREW M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PAS</td>
<td>KNÖTT ANDREW M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DT</td>
<td>Patent</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>GB 2007008500</td>
<td>D0 20070606</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIT</td>
<td>GB0: PATENT APPLICATION FILED</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DAV</td>
<td>20070606 gazette reference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STA</td>
<td>PRE: GRANT PUBLICATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AI</td>
<td>GB 2007-8500</td>
<td>A 20070502</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIT</td>
<td>GBA Patent application</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRAI</td>
<td>GB 2007-8500</td>
<td>A 20070502 {GBA, 20070705}</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRAIT</td>
<td>GBA PATENT APPLICATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FA</td>
<td>AI; AN; DAV; DT; ED; EW; PA; PAS; PI; PIT; PRAI; TI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- In the past, publications of US applications often didn’t show the patent assignee or the inventor was entered into the PA field. From 2015, the USPTO has published Corporate Patent Assignee Names which are entered into the PA field or into designated fields. In order to cover all these fields the super search field /PASS should be used. In some cases it may still be that no patent assignee is present. This problem can be approached by including in the SDI profile the names of known inventors or possibly CPC or IPC codes in addition to the patent assignee name.

- In Japanese publications there is often no patent assignee, no inventor, or no title. Sometimes the data are added later, sometimes they are not. Concerning the update fields the same applies as in the cases described above (D0 publications, patent assignee). Always include the IPC to monitor Japanese publications.
The issue of D0 publications does not exist in DWPI or other databases because this type of documents is not entered there. Anyway, the issue of patent assignees not being available in US applications should be considered. The ED field is set when the Application is entered into the database. When the document is updated, e.g. after grant of a patent, and the patent assignee becomes available the ED field remains unchanged. In this case the /UP field should be used rather than the /ED field, answering NO to the question “ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN?” (assuming that you wish to receive all family members).
Search examples
31 Subject search example

31.1 Example 1

What inventions about brakes for in-line skates do exist?

31.1.1 Subject classification using IPC codes

<table>
<thead>
<tr>
<th>A63</th>
<th>Section</th>
<th>Section A — HUMAN NECESSITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A63C</td>
<td>Class</td>
<td>SPORTS; GAMES; AMUSEMENTS</td>
</tr>
<tr>
<td>A63C</td>
<td>Subclass</td>
<td>SKATES; SKIS; ROLLER SKATES; DESIGN OR LAYOUT OF COURTS, RINKS OR THE LIKE [5]</td>
</tr>
<tr>
<td>A63C 17</td>
<td>Group</td>
<td>Roller skates; Skate-boards [4]</td>
</tr>
<tr>
<td>A63C 17/00</td>
<td>Main Group</td>
<td>Roller skates; Skate-boards [4]</td>
</tr>
<tr>
<td>A63C 17/01</td>
<td>Sub Group</td>
<td>Skate-boards (A63C17/02 to A63C17/28 take precedence) [4]</td>
</tr>
<tr>
<td>A63C 17/02</td>
<td>Sub Group</td>
<td>with wheels arranged in two pairs</td>
</tr>
<tr>
<td>A63C 17/04</td>
<td>Sub Group</td>
<td>with wheels arranged otherwise than in two pair</td>
</tr>
<tr>
<td>A63C 17/06</td>
<td>Sub Group</td>
<td>... single-track type</td>
</tr>
<tr>
<td>A63C 17/08</td>
<td>Sub Group</td>
<td>... single-wheel type</td>
</tr>
<tr>
<td>A63C 17/10</td>
<td>Sub Group</td>
<td>with endless tracks</td>
</tr>
<tr>
<td>A63C 17/12</td>
<td>Sub Group</td>
<td>with driving mechanisms</td>
</tr>
<tr>
<td>A63C 17/14</td>
<td>Sub Group</td>
<td>... with brakes, e.g. toe stoppers, freewheel roller clutches</td>
</tr>
<tr>
<td>A63C 17/16</td>
<td>Sub Group</td>
<td>... for use on specially shaped or arranged runways</td>
</tr>
<tr>
<td>A63C 17/18</td>
<td>Sub Group</td>
<td>... convert into ice or snow-running skates</td>
</tr>
</tbody>
</table>

These IPC codes are used for searching:
- A63C 17/04, A63C 17/06 and A63C 17/08 for the ‘in-line skates’ aspect,
- A63C 17/14 for the ‘brakes for roller skates’ aspect.

31.1.2 Keywords

The keywords to be searched in the patent databases can be arranged in these groups:
1. Expressions for skates/roller skates,
2. Expressions for ‘in-line’,
3. Expressions for brakes.

We use the following English words for searching:
1. Skate, Rollerskate, Roller skate, Rollerblade, Roller blade, Roller shoe
2. In-line, Inline, Aligned, Single-row, One-row, Single-track, One-track
3. Brake, Braking, Stop

The English words are partly used in German publications, too. For the German language databases we should additionally use the corresponding German words:
1. Rollschuhe
2. Einspurig, einreihig
3. Brems-, Abbrems-, Anhalt-

The words from groups (1) and (2) will be linked by a proximity operator.

The classification codes will be linked to the text search by AND (see below).

31.1.3 Linking classification and text search

Classification codes were found for all aspects of the search question. As a plain classification search may lead to a large number of hits (in particular in international databases) the search by classification should be linked to the search by keywords. The various combinations of classification codes (IPC) and keywords should be considered, e.g.:
1. IPC (brakes for skates) AND Keywords (in-line skates)
Search examples

2. IPC (in-line skates) AND Keywords (brakes)
3. IPC (brakes for skates) AND IPC (in-line skates)
4. Keywords (in-line skates) AND Keywords (brakes)

At last the individual results are combined by OR to form the overall result.

Combination (3) improves the overall result in particular for documents lacking text fields (e.g. utility models in PATDPA, where there is neither an abstract nor a claim) while combination (4) yields an improved result with incomplete or unfavourable classification.

31.1.4 Search with IPC: DWPI, alternative 1

(Bibliographic file in English, IPC8 with re-classification, using the field IPC for IPC1–8, for IPC1–7 the ICI and ICA fields are included, attributes are not used in this example, range searching, search in the /BI field)

31.1.4.1 Command file for searching with STN Express

(cf. "Monitoring patents" or the STN Express manual)

```plaintext
\* SEARCH "BRAKES FOR IN-LINE SKATES" IN THE WPINDEX FILE
 => fil wpindex

\* IPC: ASPECT "IN-LINE SKATES"
 => s (a63c0017-04-a63c0017-08)/ipc>_IPCinlsk

\* IPC: ASPECT "BRAKES"
 => s (a63c0017-14)/ipc>_IPCbrake

\* KEYWORDS: ASPECT "IN-LINE SKATES"
 => s ?skat?>_kw1
 => s ?rollerblad? or ?roller?(1a)?blad?>_kw2
 => s ?roller?(1a)?shoe?>_kw3
 => s _kw1-_kw3>_kw4
 => s inline or in-line>_kw5
 => s align##>_sw6
 => s (single or one)(1a)(row# or track#)>_kw7
 => s _kw5-_kw7>_kw8
 => s _kw4(3a)_kw8>_KWinlsk

\* KEYWORDS: ASPECT "BRAKES"
 => s ?brake? or ?braking or stop####>_KWbrake

\* LINKING
 => s _IPCinlsk and _KWbrake>_res1
 => s _IPCbrake and _KWinlsk>_res2
 => s _KWinlsk and _KWbrake>_res3
 => s _IPCinlsk and _IPCbrake>_res4
 => s _res1-_res4>_res
```

31.1.4.2 Search

```plaintext
=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS

IPC: aspect 'in-line skates'
=> $ (A63C0017-04-A63C0017-08)/IPC
L1 2540 (A63C0017-04-A63C0017-08)/IPC ( 3 TERMS)
   (A63C0017-04+NEXT2/IPC)

IPC: aspect 'brakes'
=> $ (A63C0017-14)/IPC
L2 1425 (A63C0017-14)/IPC

Keywords on the aspect 'in-line skates' follow now.

=> $ ?SKAT?
L3 12845 ?SKAT?
=> $ ?ROLLERBLAD? OR ?ROLLER?(1A)?BLAD?
```

249
Guide to STN Patent Databases

123 ?ROLLERBLAD?
1540068 ?ROLLER?
410442 ?BLAD?
3110 ?ROLLER?(1A)?BLAD?
L4 3211 ?ROLLERBLAD? OR ?ROLLER?(1A)?BLAD?

=> $ ?ROLLER?(1A)?SHOE?
1540068 ?ROLLER?
109174 ?SHOE?
L5 1050 ?ROLLER?(1A)?SHOE?

=> $ L3-L5
L6 16456 (L3 OR L4 OR L5)

=> $ INLINE OR IN-LINE
6725 INLINE
17050258 IN
1335954 LINE
49846 IN-LINE
(IN\ W\ LINE)
L7 55962 INLINE OR IN-LINE

=> $ ALIGN##
L8 297855 ALIGN##

=> $ (SINGLE OR ONE)(1A)(ROW# OR TRACK#)
854575 SINGLE
4416782 ONE
199261 ROW#
271775 TRACK#
L9 22541 (SINGLE OR ONE)(1A)(ROW# OR TRACK#)

=> $ L7-L9
L10 372196 (L7 OR L8 OR L9)

=> $ L6(3A)L10
L11 2542 L6(3A)L10

Next are keywords on the aspect 'brakes':

=> $ ?BRAKE? OR ?BRAKING OR STOP####
220145 ?BRAKE?
103989 ?BRAKING
694306 STOP####
L12 914112 ?BRAKE? OR ?BRAKING OR STOP####

Now the keywords and IPC codes are linked in four combinations, see the introduction to this example.

=> $ L1 AND L12
L13 562 L1 AND L12

=> $ L2 AND L11
L14 469 L2 AND L11

=> $ L11 AND L12
L15 553 L11 AND L12

=> $ L1 AND L2
L16 515 L1 AND L2

The overall result is achieved by OR.

=> $ L13-L16
L17 1036 (L13 OR L14 OR L15 OR L16)

With 1036 hits the search strategy should be refined. To check the result and to find more aspects to refine the search a few titles are displayed with D SCAN.

=> D SCAN

There being no stop words in DWPI, 'in' is searched. The hyphen is interpreted as (W) proximity, which can be seen in the postings (in brackets).
Search examples

L17 1036 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN

TI Detachable in-line skate has sliding module which is slid according to rotation of footstool in wheel frame, and mode conversion piece enforces hanging of sliding module in walk mode to perform conversion to driving mode from break mode

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): 4

L17 1036 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN

TI Composite structure used in e.g. automobiles, comprises overmolding resin composition over portion of the surface having portion made of surface resin composition containing fibrous material impregnated with matrix resin composition

L17 1036 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN

TI Ball-slide sport shoes, have chassis provided with back braking block corresponding to position of heel, and soles, chassis, slide ball, front braking block and back braking block that are integrally fixed

L17 1036 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN

TI Single wheel skate - in which a shoe sole only contains a single roller and a braking rubber block

L17 1036 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN

TI Frame for in-line skate, has front portion of heel brake pad provided with gap, where wheel rotary part is provided for right in-line skate over wheel diameter

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): END

To check the titles one should save the answer set with the SAVE command. The search can then be continued later with more specific search terms.

=> SAVE L17 INLWPI/A
ANSWER SET L17 HAS BEEN SAVED AS 'INLWPI/A'

A refinement could for example be the type of brakes:

- Hand-actuated brakes
- Brakes acting on the ground
- Brakes acting on the wheels

However, as the IPC does not offer specific enough classes this requires a keyword search.

31.1.5 Search with IPC: DWPI, alternative 2

(Bibliographic file in English, IPC8 with re-classification, using the field IPC for IPC1–8, for IPC1–7 the ICI and ICA fields are included, attributes are used in this example for invention information, range searching)

31.1.5.1 Command file for searching with STN Express

```plaintext
* SEARCH "BRAKES FOR IN-LINE SKATES" IN THE WPINDEX FILE
=> fil wpindex

* IPC: ASPECT "IN-LINE SKATES"
=> s (a63c0017-04-a63c0017-08)/ipc (S) (I or ICM or ICS)/IPC.KW > _IPCinlsk

* IPC: ASPECT "BRAKES"
=> s (a63c0017-14)/ipc (S) (I OR ICM OR ICS)/IPC. > _IPCbrake

* KEYWORDS: ASPECT "IN-LINE SKATES"
=> s ?skat?\ > _kw1
```
31.1.5.2 Search

This alternative search strategy using attributes yields 18 fewer documents than the first one.
31.1.6 Search with IPC: DWPI, alternative 3

(Bibliographic file in English, IPC8 with re-classification, using the field IPC for IPC1–8, for IPC1–7 this covers the ICI and ICA fields, attributes are not used in this example, range searching, search in Bl field, search is extended to the BIEX field)

31.1.6.1 Search strategy

<table>
<thead>
<tr>
<th>“Brakes” aspect</th>
<th>“Ground contact” aspect</th>
<th>“In-line skates” aspect</th>
</tr>
</thead>
<tbody>
<tr>
<td>brake</td>
<td>contacting the ground</td>
<td>skate</td>
</tr>
<tr>
<td>braking</td>
<td>contacting ground</td>
<td>rollerblade</td>
</tr>
<tr>
<td>stop</td>
<td>contacting</td>
<td>roller blade</td>
</tr>
<tr>
<td></td>
<td>contacting ground</td>
<td>roller shoe</td>
</tr>
<tr>
<td></td>
<td>contacting</td>
<td>inline</td>
</tr>
<tr>
<td></td>
<td>contacting</td>
<td>in line</td>
</tr>
<tr>
<td></td>
<td>contacting</td>
<td>single row</td>
</tr>
<tr>
<td></td>
<td>contacting</td>
<td>single track</td>
</tr>
<tr>
<td></td>
<td>contacting</td>
<td>one row</td>
</tr>
<tr>
<td></td>
<td>contacting</td>
<td>one track</td>
</tr>
</tbody>
</table>

A63C0017-14 (No IPC code available) A63C0017-04 A63C0017-06 A63C0017-08

31.1.6.2 Command file for searching with STN Express

```bash
\* SEARCH "GROUND CONTACTING BRAKES FOR IN-LINE SKATES" IN WPINDEX
=> fil wpindex

\* BRAKES
=> s ?brake? or ?braking or stop###"> _SWbrake
=> s (a63c0017-14)/ipc>_IPCbrake
=> s _SWbrms or _IPCbrms> _Brake

\* GROUND CONTACT
=> s contact? (3a) ground? or groundcontact?!> _Contact

\* IN-LINE SKATES
=> s ?skat? or ?rollerblad? or ?roller?(1a)?blad? or ?roller?(1a)?shoe?!> _SWskate
=> s inline or in-line or align## or (single or one)(1a)(row# or track#)> _SWinl
=> s _SWskate(3a)_SWinl> _SWinlsk
=> s (a63c0017-04-a63c0017-08)/ipc>_IPCinlsk
=> s _SWinlsk or _IPCinlsk> _Skate

\* LINKING
=> s _Brake and _Contact and _Skate
```

31.1.6.3 Search

```bash
=> FIL WPINDEX
FILE ‘WPINDEX’ ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS

=> D H S
L1 914112 S ?BRAKE? OR ?BRAKING OR STOP###
L2 1425 S (A63C00017-14)/IPC
L3 914440 S L1 OR L2
L4 19176 S CONTACT? (3A) GROUND?
L5 16456 S ?SKAT? OR ?ROLLERBLAD? OR ?ROLLER?(1A)?BLAD? OR ?ROLLER?(1A)?
L6 372196 S INLINE OR IN-LINE OR ALIGN## OR (SINGLE OR ONE)(1A)(ROW# OR T
L7 2542 S L5(3A) L6
L8 2540 S (A63C0017-04-A63C0017-08)/IPC
L9 4077 S L7 OR L8
L10 56 S L3 AND L4 AND L9
```
The new aspect introduces some limitation because the IPC cannot be used for this aspect. The search is extended to the BIEX field:

```plaintext
=> SET SFIELDS BI BIEX
...
=> D H I S
FILE 'WPINDEX' ENTERED
L11  1244963 S ?BRAKE? OR ?BRAKING OR STOP###
L12  1393 S (A63C0017-14)/IPC(S) (I OR ICM OR ICS)/IPC.KW
L13  1245203 S L11 OR L12
L14  30477 S CONTACT? (3A) GROUND? OR GROUNDCONTACT?
L15  30664 S ?SKAT? OR ?ROLLERBLAD? OR ?ROLLER?(1A)?BLAD? OR ?ROLLER?(1A)?
L16  551938 S INLINE OR I N-LINE OR ALIGN## OR (SINGLE OR ONE)(1A)(ROW# OR T
L17  2794 S L15(3A)L16
L18  2471 S (A63C0017-04-A63C0017-08)/IPC (S) (I OR ICM OR ICS)/IPC.KW
L19  4196 S L17 OR L18
L20  97 S L13 AND L14 AND L19
L21  42 S L20 NOT L10
```

The search in BIEX yields 42 more documents. When looking at the titles you will find more expressions for the “ground contact” aspect.

```plaintext
=> D SCAN
L21  42 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Ground engaging in-line roller skate brake which is remotely activated - has aligned wheels attached to boot, two slidably engaged brake members moving between two positions with braking surface above and in contact with skating surface
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): 2
L21  42 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Brake system for roller skates - has brake pad that is moved to make contact with skating surface when tension is applied to actuating line through handle
L21  42 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Roller ski for use on non snow or turf surfaces, has single row of rollers supported by bearings at bottom surface center of roller ski board
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): END
```

### 31.1.7 Search with IPC: full-text databases PATDPFULL, EPFULL, PCTFULL

(Full-text databases, IPC8, employing range search, search in the full text (in English and German) and in the TI, AB, CLM fields)

#### 31.1.7.1 Command file for searching with STN Express

```plaintext
/* SEARCH "GROUND CONTACTING BRAKES FOR IN-LINE SKATES"
* IN PATDPFULL, EPFULL AND PCTFULL
=> fil patdpfull epfull pctfull
/* BRAKES
=> s (?brake? or ?braking or stop### or ?abbrems? or ?anhalt?)\> _SWbrake
=> s (A63C0017-14)/ipc\> _IPCbrake
=> s _SWbrake or _IPCbrake\> _Brake
/* GROUND CONTACT
=> s (contact? (3a) ground? or groundcontact? or ?bodenkontakt? or boden (3a)
kontakt?)\> _Contact
```
31.1.7.2 Search

Search examples

```plaintext
\* IN-LINE SKATES
=> s (\textit{in-line skates} or \textit{in-line skate} or \textit{inline skate} or \textit{inline or in-line or align## or (single or one)(1a)(row# or track#) or \textit{?einspur? or ?einreih?}) \textgreater\textit{SWinl} = s (\textit{in-line or in-line or align## or (single or one)(1a)(row# or track#) or \textit{?einspur? or ?einreih?}) \textgreater\textit{SWinl}

\* LINKING
=> s \_Brake and \_Contact and \_Skate
```

It may be a good idea to use the TI, AB, CLM fields rather than the Basic Index to obtain fewer, but more relevant documents. D HIS FULL provides more information on the search history.

31.2 Example 2

This search is on applications of GPS (the Global Positioning System) on golf courses.

31.2.1 Subject classification using Derwent Manual Codes

The codes have to be found in the manual or from documents already known. The thesaurus may then be used online and the search be performed using the E numbers created.

Similar to a search by IPC codes or other classification systems the search by Derwent Manual Codes should be complemented by a keyword search as it is difficult to find classification codes for all possible applications. A plain keyword search may not be necessary if the subject field is sufficiently covered by Manual Codes but may be useful to check the result or to find additional codes.
31.2.2 Search in DWPI

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS

=> SET EXP CONT
SET COMMAND COMPLETED

=> E W06-A03+ALL/MC
E1  234489  BT2  W06/MC
    DEF AVIATION, MARINE AND RADAR SYSTEMS
E2  2449  BT1  W06-A/MC
    DEF RADAR, NAVIGATION, ETC.
E3  10347  -> W06-A03/MC
    DEF POSITION FIXING
E4  4573  NT1  W06-A03A/MC
    DEF SATELLITE BASED SYSTEM E.G. GPS
       HNTE (1992-
E5  507  NT2  W06-A03A1/MC
    DEF NOVEL ASPECTS OF GPS
       HNTE (1997-
E6  5754  NT2  W06-A03A5/MC
    DEF GPS APPLICATIONS
       HNTE (1997-
E7  750  NT3  W06-A03A5A/MC
    DEF DIFFERENTIAL GPS
       HNTE (2002-
E8  16580  NT3  W06-A03A5C/MC
    DEF ABSOLUTE POSITION DETERMINATION
       HNTE (2002-
E9  3440  NT3  W06-A03A5E/MC
    DEF POSITION DETERMINATION FOR SECONDARY PURPOSE
       HNTE (2002-
E10  609  NT3  W06-A03A5G/MC
    DEF USE OF GPS AS A TIME STANDARD
       HNTE (2002-
E11  114  NT3  W06-A03A5J/MC
    DEF USE OF GPS AS A FREQUENCY STANDARD
       HNTE (2002-
E12   38  NT3  W06-A03A5M/MC
    DEF GPS JAMMING/ANTI-JAMMING
       HNTE (2007-
E13  2114  NT3  W06-A03A5R/MC
    DEF NOVEL GPS RECEIVER
       HNTE (2002-
E14  170  NT3  W06-A03A5X/MC
    DEF OTHER GPS APPLICATIONS
       HNTE (2002-
E15  1659  NT1  W06-A03B/MC
    DEF USING RADIO WAVES
       HNTE (2005-
E16  209  NT1  W06-A03D/MC
    DEF USING LIGHT WAVES
       HNTE (2005-
E17  432  NT1  W06-A03F/MC
    DEF USING SONIC OR ULTRASONIC WAVE
       HNTE (2005-
********** END **********

=> S E3-E14
W06-A03 POSITION FIXING
W06-A03A SATELLITE BASED SYSTEM E.G. GPS
W06-A03A1 NOVEL ASPECTS OF GPS
W06-A03A5 GPS APPLICATIONS
W06-A03A5A DIFFERENTIAL GPS
W06-A03A5C ABSOLUTE POSITION DETERMINATION
W06-A03A5E POSITION DETERMINATION FOR SECONDARY PURPOSE
W06-A03A5G USE OF GPS AS A TIME STANDARD

Twelve codes are used for the 'GPS' aspect.
Search examples

W06-A03A5J USE OF GPS AS A FREQUENCY STANDARD
W06-A03A5M GPS JAMMING/ANTI-JAMMING
W06-A03A5R NOVEL GPS RECEIVER
W06-A03A5X OTHER GPS APPLICATIONS

10347 W06-A03/MC
4573 W06-A03A/MC
507 W06-A03A1/MC
5754 W06-A03A5/MC
750 W06-A03A5A/MC
16580 W06-A03A5C/MC
3440 W06-A03A5E/MC
609 W06-A03A5G/MC
114 W06-A03A5J/MC
38 W06-A03A5M/MC
2114 W06-A03A5R/MC
170 W06-A03A5X/MC

L1 43401 (W06-A03/MC OR W06-A03A/MC OR W06-A03A1/MC OR W06-A03A5/MC OR W06-A03A5A/MC OR W06-A03A5C/MC OR W06-A03A5E/MC OR W06-A03A5G/MC OR W06-A03A5J/MC OR W06-A03A5M/MC OR W06-A03A5R/MC OR W06-A03A5X/MC)

Next are codes on the set-up of sports grounds, such as golf courses.

=> E W04-X01+ALL/MC
E18 883865 BT2 W04/MC
  DEF AUDI/O/VISUAL RECORDING AND SYSTEMS
E19 1799 BT1 W04-X/MC
  DEF SPORTS, GAMES, TOYS
E20 6276 --> W04-X01/MC
  DEF SPORTS AND LEISURE
  HNTE (1983-)
E21 4599 NT1 W04-X01A/MC
  DEF TRAINING EQUIPMENT
  HNTE (1983-)
E22 3147 NT2 W04-X01A1/MC
  DEF PERFORMANCE MONITORS
  HNTE (1992-)
E23 1257 NT2 W04-X01A3/MC
  DEF SIMULATORS
  HNTE (1992-)
E24 4889 NT2 W04-X01A5/MC
  DEF FITNESS TRAINING EQUIPMENT
  HNTE (1992-)
E25 61 NT3 W04-X01A5A/MC
  DEF EXERCISE BICYCLE
  HNTE (2011-)
E26 297 NT3 W04-X01A5C/MC
  DEF EXERCISE TREADMILL
  HNTE (2011-)
E27 637 NT2 W04-X01A9/MC
  DEF OTHER SPORTS TRAINING EQUIPMENT
  HNTE (1992-)
E28 534 NT1 W04-X01C/MC
  DEF COUNTING, TIMING, MEASURING, SCORING
  HNTE (1992-)
E29 1313 NT2 W04-X01C1/MC
  DEF COUNTING, TIMING, MEASURING, SCORING, DETECTION
  HNTE (1992-)
E30 49 NT3 W04-X01C1A/MC
  DEF COUNTING, TIMING, MEASURING
  HNTE (2011-)
E31 14 NT3 W04-X01C1C/MC
  DEF DETECTION OF SCORING OR FAULT CONDITION
  HNTE (2011-)
E32 775 NT2 W04-X01C3/MC
  DEF SCORING, SCORE DISPLAY
  HNTE (1992-)
E33 763 NT1 W04-X01D/MC
  DEF LOCATORS AND GUIDING SYSTEMS
  HNTE (1992-)
The codes relevant for golf courses are chosen and included in the search.

=> S E28-E36, E44
W04-X01C COUNTING, TIMING, MEASURING, SCORING
W04-X01C1 COUNTING, TIMING, MEASURING, SCORING, DETECTION
W04-X01C1A COUNTING, TIMING, MEASURING
W04-X01C1C DETECTION OF SCORING OR FAULT CONDITION
W04-X01C3 SCORING, SCORE DISPLAY
W04-X01D LOCATORS AND GUIDING SYSTEMS
W04-X01E SPORTS EQUIPMENT PER SE
W04-X01F SPORTS GROUNDS, STADIA, COURSES, INSTALLATIONS
W04-X01H WARNING SYSTEMS, ALARMS, PROTECTION
W04-X01K1L GOLF
534 W04-X01C/MC
1313 W04-X01C1/MC
49 W04-X01C1A/MC
14 W04-X01C1C/MC
775 W04-X01C3/MC
763 W04-X01D/MC
5362 W04-X01E/MC
2989 W04-X01F/MC
701 W04-X01H/MC
1376 W04-X01K1L/MC
L2 12610 (W04-X01C/MC OR W04-X01C1/MC OR W04-X01C1A/MC OR W04-X01C1C/MC OR W04-X01C3/MC OR W04-X01D/MC OR W04-X01E/MC OR W04-X01F/MC OR W04-X01H/MC OR W04-X01K1L/MC)

=> S ?GOLF?
L3 54433 ?GOLF?/BI,BIEX

The abbreviation ‘GPS’ having a different use in the CPI (Chemical Patents Index) segment of DWPI this segment is excluded from the search.

=> S (GPS OR GLOBAL POSITIONING SYSTEM#) NOT CPI/FS
134934 GPS
158205 GPS
37952 GLOBAL
223203 POSITIONING
2807431 SYSTEM#
12516 GLOBAL POSITIONING SYSTEM# (GLOBAL(W)POSITIONING(W)SYSTEM#)
6167750 CPI/FS
L4 64838 (GPS/BI,BIEX OR GLOBAL POSITIONING SYSTEM#/BI,BIEX) NOT CPI/FS
Search examples

Next are four combinations of classification and keywords. This is the combination of the Manual Codes for the various aspects.

=> S L1 AND L2
L5 320 L1 AND L2

As it is difficult to find appropriate classification codes for all applications it is a good idea to use combinations with keywords.

=> S L1 AND L3
L6 307 L1 AND L3

And this is a plain keyword search.

=> S L2 AND L4
L7 404 L2 AND L4

=> S L3 AND L4
L8 485 L3 AND L4

=> S L5-L8
L9 749 (L5 OR L6 OR L7 OR L8)

To check some documents are displayed with D SCAN.

=> D L9 SCAN
L9 749 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1 Golf ball locator for use by golfer at golf club, has processor controlling radar transceiver and display, calculating position of golf ball and providing display to inform user about position of golf ball

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): 5
L9 749 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1 Golf cart with automatic track guidance

L9 749 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1 Golf assistant terminal has arithmetic processing unit that processes required data for play and indicator that displays drop point based on result of arithmetic processing unit

L9 749 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1 Golf tournament information providing system for golf tournament hall, has information input portable terminal transmitting geographical positional information of golf ball and tournament basic information to management server

L9 749 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1 Measurement structure of distance in golf course uses portable measurement display device in displaying distance of green, and distance of cart to green in (liquid crystal display) LCD

L9 749 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1 Golf ball location system for use on golf course has display screen showing plan views or three-dimensional displays of golf course and using GPS navigation system

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): END

If the classification codes were good enough only few additional documents should be found in the plain keyword search—in this case there are 40 documents that were found exclusively by the keyword search.
The group T01J (data processing systems) would probably be a good candidate to complement the search results.
32 Example for subject classification on-line (IPC)

32.1 Hierarchical search

Hierarchical search with the 2-point subgroup, G03F 7/027. All relevant subgroups should be included in the search.

Excerpt from the hierarchy of the IPC class, G03 – Photography

<table>
<thead>
<tr>
<th>Subgroup</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G03F 7/027</td>
<td>Non-macromolecular photopolymerisable compounds having carbon-to-carbon double bonds</td>
</tr>
<tr>
<td>G03F 7/028</td>
<td>with photosensitivity-increasing substances</td>
</tr>
<tr>
<td>G03F 7/029</td>
<td>inorganic compounds; Onium compounds;...</td>
</tr>
<tr>
<td>G03F 7/031</td>
<td>Organic compounds not covered by group G03F 7/029</td>
</tr>
<tr>
<td>G03F 7/032</td>
<td>with binders</td>
</tr>
<tr>
<td>G03F 7/033</td>
<td>the binders being polymers obtained by reactions only involving carbon-to-carbon unsaturated bonds</td>
</tr>
<tr>
<td>G03F 7/035</td>
<td>the binders being polyurethanes</td>
</tr>
<tr>
<td>G03F 7/037</td>
<td>the binders being polyamides or polyimides</td>
</tr>
</tbody>
</table>

1. EXPAND with the IPC code shows whether this code is in the IPC thesaurus. The AT column refers to the IPC thesaurus.

2. Use the +NT relationship code to display all ‘Narrower Terms’.

=> FIL HCAPLUS

1. EXPAND with the IPC code shows whether this code is in the IPC thesaurus. The AT column refers to the IPC thesaurus.

=> E G03F0007-027/IPC 5

<table>
<thead>
<tr>
<th>E#</th>
<th>FREQUENCY</th>
<th>AT</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>3</td>
<td>G03F0007-026/IPC</td>
<td></td>
</tr>
<tr>
<td>E2</td>
<td>1</td>
<td>G03F0007-0269/IPC</td>
<td></td>
</tr>
<tr>
<td>E3</td>
<td>9985</td>
<td>4</td>
<td>G03F0007-027/IPC</td>
</tr>
<tr>
<td>E4</td>
<td>4136</td>
<td>4</td>
<td>G03F0007-028/IPC</td>
</tr>
<tr>
<td>E5</td>
<td>2974</td>
<td>2</td>
<td>G03F0007-029/IPC</td>
</tr>
</tbody>
</table>

=> E G03F0007-027+NT/IPC

<table>
<thead>
<tr>
<th>E#</th>
<th>FREQUENCY</th>
<th>AT</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E6</td>
<td>9985</td>
<td>4</td>
<td>G03F0007-027/IPC</td>
</tr>
<tr>
<td>E7</td>
<td>4136</td>
<td>NT1</td>
<td>G03F0007-028/IPC</td>
</tr>
<tr>
<td>E8</td>
<td>2974</td>
<td>NT2</td>
<td>G03F0007-029/IPC</td>
</tr>
<tr>
<td>E9</td>
<td>3195</td>
<td>NT2</td>
<td>G03F0007-031/IPC</td>
</tr>
<tr>
<td>E10</td>
<td>3012</td>
<td>NT1</td>
<td>G03F0007-032/IPC</td>
</tr>
<tr>
<td>E11</td>
<td>4208</td>
<td>NT2</td>
<td>G03F0007-033/IPC</td>
</tr>
<tr>
<td>E12</td>
<td>487</td>
<td>NT2</td>
<td>G03F0007-035/IPC</td>
</tr>
</tbody>
</table>
Guide to STN Patent Databases

E13    1125  NT2  G03F0007-037/IPC
       . . . . the binders being polyamides or polyimides
   ADVANCED
   VALID FROM 19900101 TO PRESENT (IPC EDITION: 5-8)

******* END ***********

3. Use the +NT relationship code to search the IPC code and all ‘Narrower Terms’.

=> S G03F0007-027+NT/IPC
L1 18761 G03F0007-027+NT/IPC (8 TERMS)

32.2 Range search
Searching all IPC codes from B60R 21/23 to B60R 21/239.

Excerpt from the hierarchy of IPC class, B60R 21 – Airbags

<table>
<thead>
<tr>
<th>IPC Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B60R 21/16</td>
<td>Inflatable occupant restraints or confinements designed to inflate upon impact or impending impact, e.g. air bags (connection of valves to inflatable elastic bodies B60C 29/00) [4]</td>
</tr>
<tr>
<td>B60R 21/23</td>
<td>....Inflatable members [2006.01]</td>
</tr>
<tr>
<td>B60R 21/231</td>
<td>....characterised by their shape, e.g. shaped with respect to a specific part of the occupant’s body (B60R 21/233 takes precedence) [2006.01]</td>
</tr>
<tr>
<td>B60R 21/232</td>
<td>....Curtain-type airbags deploying mainly in a vertical direction from their top edge [2011.01]</td>
</tr>
<tr>
<td>B60R 21/233</td>
<td>....comprising a plurality of individual compartments; comprising two or more bag-like members, one within the other [2006.01]</td>
</tr>
<tr>
<td>B60R 21/234</td>
<td>....Expansion regulating features [2011.01]</td>
</tr>
<tr>
<td>B60R 21/238</td>
<td>....Tethers [2011.01]</td>
</tr>
<tr>
<td>B60R 21/239</td>
<td>....Tear seams [2011.01]</td>
</tr>
<tr>
<td>B60R 21/246</td>
<td>....Soft diffusers [2011.01]</td>
</tr>
<tr>
<td>B60R 21/237</td>
<td>....characterised by the way they are folded [2006.01]</td>
</tr>
<tr>
<td>B60R 21/239</td>
<td>....characterised by their venting means [2006.01]</td>
</tr>
</tbody>
</table>

=> FIL INPADOCDB

=> S (B60R0021-23 OR B60R0021-239)/IPC
L2 14809 (B60R0021-23 OR B60R0021-239)/IPC

A small number of documents have not been re-classified. Until re-classification is complete also use the old (now invalid) IPC codes. Even with re-classification you can still get hits with dropped codes.

=> D PI IPC.TAB

L3  ANSWER 1 OF 65   INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN
Pi  JP 3052832U    U 19981009
IPC CODE VERSION POS INV LEVEL CC ASSIGNMENT DATE STAT
--- ------- ------- ------- ------- ------- ------- ------- ------- -------
ICM B60R0021-24 (6) ---

262
### 32.3 Identifying relevant IPC classes (Chemical Abstracts)

Identifying relevant IPC classes for the chemical treatment of wood.

<table>
<thead>
<tr>
<th>E#</th>
<th>FILE</th>
<th>FREQUENCY</th>
<th>AT</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>1</td>
<td>WOOD * ABRASIVE GRINDING OR POLISHING OF WOOD/IPC</td>
</tr>
<tr>
<td>E2</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>1</td>
<td>WOOD * ARTIFICIAL WOOD/IPC</td>
</tr>
<tr>
<td>E3</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>1</td>
<td>WOOD * CHEMICAL OR PHYSICAL TREATMENT OF WOOD/IPC</td>
</tr>
<tr>
<td>E4</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>1</td>
<td>WOOD * CHIPBOARD/IPC</td>
</tr>
</tbody>
</table>

1. EXPAND with keyword in the IPC field.

<table>
<thead>
<tr>
<th>E#</th>
<th>FILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>ZCAPLUS</td>
</tr>
<tr>
<td>E2</td>
<td>ZCAPLUS</td>
</tr>
<tr>
<td>E3</td>
<td>ZCAPLUS</td>
</tr>
<tr>
<td>E4</td>
<td>ZCAPLUS</td>
</tr>
<tr>
<td>E5</td>
<td>ZCAPLUS</td>
</tr>
<tr>
<td>E6</td>
<td>ZCAPLUS</td>
</tr>
<tr>
<td>E7</td>
<td>ZCAPLUS</td>
</tr>
</tbody>
</table>

2. EXPAND with relevant keywords and +KT relationship code displays relevant IPC codes.

<table>
<thead>
<tr>
<th>E#</th>
<th>FILE</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>ZCAPLUS</td>
<td>0</td>
<td>WOOD * CHEMICAL OR PHYSICAL TREATMENT OF WOOD/IPC</td>
</tr>
<tr>
<td>E2</td>
<td>ZCAPLUS</td>
<td>9583</td>
<td>KT B27K/IPC</td>
</tr>
</tbody>
</table>

3. EXPAND with the relevant IPC code and +ED relationship code displays the title of the IPC code.

<table>
<thead>
<tr>
<th>E#</th>
<th>FILE</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>ZCAPLUS</td>
<td>9583</td>
<td>B27K/IPC PROCESSES, APPARATUS OR SELECTION OF SUBSTANCES FOR IMPREGNATING, STAINING, DYEING, BLEACHING OF WOOD OR SIMILAR MATERIALS, OR TREATING OF WOOD OR SIMILAR MATERIALS WITH PERMEANT LIQUIDS, NOT OTHERWISE PROVIDED FOR (APPLYING LIQUIDS OR OTHER FLUENT MATERIALS TO SURFACES IN GENERAL B05; COATING WOOD OR SIMILAR MATERIAL B44D); CHEMICAL OR PHYSICAL TREATMENT OF CORK, CANE, REED, SRAW OR SIMILAR MATERIALS</td>
</tr>
</tbody>
</table>

### 32.4 Identifying relevant IPC classes (INPADOCDB)

Identifying relevant IPC classes for the chemical treatment of wood.

<table>
<thead>
<tr>
<th>E#</th>
<th>FILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>INPADOCDB</td>
</tr>
<tr>
<td>E2</td>
<td>INPADOCDB</td>
</tr>
<tr>
<td>E3</td>
<td>INPADOCDB</td>
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<tr>
<td>E4</td>
<td>INPADOCDB</td>
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<td>INPADOCDB</td>
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<td>INPADOCDB</td>
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<tr>
<td>E7</td>
<td>INPADOCDB</td>
</tr>
<tr>
<td>E8</td>
<td>INPADOCDB</td>
</tr>
</tbody>
</table>

1. EXPAND with keyword in the IPC field.

<table>
<thead>
<tr>
<th>E#</th>
<th>FILE</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>INPADOCDB</td>
<td>0</td>
<td>WOOD * ABRASIVE GRINDING OR POLISHING OF WOOD/IPC</td>
</tr>
<tr>
<td>E2</td>
<td>INPADOCDB</td>
<td>0</td>
<td>WOOD * ARTIFICIAL WOOD/IPC</td>
</tr>
<tr>
<td>E3</td>
<td>INPADOCDB</td>
<td>0</td>
<td>WOOD * CHEMICAL OR PHYSICAL TREATMENT OF WOOD/IPC</td>
</tr>
<tr>
<td>E4</td>
<td>INPADOCDB</td>
<td>0</td>
<td>WOOD * CHIPBOARD/IPC</td>
</tr>
<tr>
<td>E5</td>
<td>INPADOCDB</td>
<td>0</td>
<td>WOOD * CUTTING SCREW THREADS ON WOOD/IPC</td>
</tr>
</tbody>
</table>
2. EXPAND with relevant keywords and +KT relationship code displays relevant IPC codes.

<table>
<thead>
<tr>
<th>E#</th>
<th>FILE</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>INPADOCDB</td>
<td>0</td>
<td>WOOD * chemical or physical treatment of</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>WOOD/IPC</td>
</tr>
<tr>
<td>E2</td>
<td>INPADOCDB</td>
<td>27120</td>
<td>KT B27K/IPC</td>
</tr>
</tbody>
</table>

3. EXPAND with the relevant IPC code and +ED relationship code displays the title of the IPC code.

<table>
<thead>
<tr>
<th>E#</th>
<th>FILE</th>
<th>FREQUENCY</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>INPADOCDB</td>
<td>27120</td>
<td>B27K/IPC Processes, apparatus or selection of substances for impregnating, staining, dyeing, bleaching of wood or similar materials, or treating of wood or similar materials with permeant liquids, not otherwise provided for (applying liquids or other fluent materials to surfaces in general B05; coating wood or similar material B44D); chemical or physical treatment of cork, cane, reed, straw or similar materials</td>
</tr>
</tbody>
</table>

********** END **********
33 Numeric Property Search example

33.1 Example 1

Search in the context of the fulltext: To make Italian espresso a water pressure exceeding 9 bar must be used. We are searching espresso machines working at that pressure.

Proximity operators can be used as in a normal text search.

=> S PRES>9BAR (S) (COFFEE? OR EXPRESSO? OR ESPRESSO? OR NESPRESSO? )
L3 227 PRES>9BAR (S) (COFFEE? OR KAFFEE? OR EXPRESSO? OR ESPRESSO? OR NESPRESSO? )

In addition the search result is limited to "apparatus for making beverages" with A47J0031.

=> S L3 AND A47J0031/IPC
L4 96 L3 AND A47J0031/IPC

=> D 10 TI PA KWIC
L4 ANSWER 10 OF 96 PCTFULL COPYRIGHT 2011 LNU on STN
TIEN PUMP MOUNT IN A BEVERAGE PREPARATION MACHINE
TIFR MONTAGE DE POMPE DANS UNE MACHINE DE PREPARATION DE BOISSON
PA NESTEC S.A., Avenue Nestle 55, CH-1800 Vevey, CH, [NAT: CH, RES: CH], for all designated states except US;
MOeRI, Peter, Bürghubelstrasse 1, CH-3272 Waplerswil, CH, [NAT: CH, RES: CH], for US only;
LANG, Markus, Nesslerenweg 80, CH-3084 Wabern, CH, [NAT: CH, RES: CH], for US only
IPC A47J0031-46 [I,A]; A47J0031-44 [I,A]; A47J0031-44 [I,C]

DETDEN...
... illustrates different parts of a beverage preparation machine. Typically, this type of beverage preparation machine is suitable to prepare coffee, tea and/or other hot beverages including soups and like food preparations. The pressure of the liquid circulated to the brewing chamber may for instance reach about 10 to 20 bar. The various parts of the beverage preparation machine and its assembly is disclosed in WO 2009/130099, the...

33.2 Example 2

Automatic conversion of units: In a search for 30-40 degrees Celsius (unit of temperature) the unit is automatically converted and the correct range in Fahrenheit or Kelvin (SI unit) is searched.

=> S 30-40 CELSIUS/TEMP
L2 136689 30-40 CELSIUS/TEMP

=> D KWIC
L2 ANSWER 1 OF 136689 PCTFULL COPYRIGHT 2011 LNU on STN
DETDEN...
... temperature. The mixture was heated to 35 °C for 3 h....
L2 ANSWER 3 OF 136689 PCTFULL COPYRIGHT 2011 LNU on STN
DETDEN...
... formed hydrogels after incubating at 37 °C for 24 hr as...
L2 ANSWER 12 OF 136689 COPYRIGHT 2011 LNU on STN
DETDEN...
... to a temperature from about 50 degrees Fahrenheit to about 550 degrees Fahrenheit...
L2 ANSWER 32 OF 136689 COPYRIGHT 2011 LNU on STN
DETDEN...
... temperature is within the range 263 Kelvin to 333 Kelvin
33.3 **Example 3**

**Non-SI units:** For some quantities, non-SI units (INCH/SIZE, FOOT/SIZE, ATM/PRES, FAHRENHEIT/TEMP, etc.) can be used for searching. The search is automatically performed in the correct SI unit.

You may even use imperial units for searching.

=> S 1-5 INCH/SIZE
L3 251985 1-5 INCH/SIZE

=> D KWIC
L3 ANSWER 1 OF 251985 PCTFULL COPYRIGHT 2011 LNU on STN

DET DEN...

surrounding that value. For example, a dimension disclosed as "40 mm" is intended to mean "about 40 mm".

=> S 100 FAHRENHEIT/TEMP
L4 43153 100 FAHRENHEIT/TEMP

=> D KWIC
L4 ANSWER 1 OF 43153 PCTFULL COPYRIGHT 2011 LNU on STN

DET DEN...

100°F = 37.72°C, this is correct.

typically range from about 5 °C to about 90 °C. The water to fabric ratio is typically...

33.4 **Example 4**

**Percentage:** We are searching alloys of bismuth, lead, tin, and cadmium, wherein bismuth and lead have a defined percentage.

=> S ALLOY (S) BISMUTH (1A) 40-60/PERCENT (S) LEAD (1A) PERCENT>20 (S) TIN (S) CADMIUM
L8 17 ALLOY (S) BISMUTH (1A) 40 PERCENT - 60 PERCENT / PERCENT (S) LEAD (1A) PERCENT>20 PERCENT (S) TIN (S) CADMIUM

=> D KWIC
L8 ANSWER 1 OF 17 PCTFULL COPYRIGHT 2011 LNU on STN

DET DEN...

temperature curing processes is used to cover the fasteners. One example of such an alloy is a eutectic alloy, made of about 50% bismuth, about 26.7% lead, about 13.3% tin, and about 10% cadmium by weight, and with a melting point of approximately 70 °C (158 °F). During the curing...

L8 ANSWER 2 OF 17 PCTFULL COPYRIGHT 2011 LNU on STN

DET DEN...

lowered clearly, if a such alloy contains approx. 14% to 60% bismuth, 20% to 30% lead or up to 45% tin or also antimony, cadmium, indium, zinc, tellurium, mercury or thallium. In particular with initially the...
34 Search by name (Inventor) example

34.1 Example 1

We are looking for the patents of Jozsef Bugovics, the inventor of the ‘anti-virus PC card’.

34.1.1 Search in DWPI

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THE THOMSON CORPORATION

Always recommended for name searches: EXPAND.
Apart from /IN also /PA should be used.

=> E BUGOVICS/IN,PA
E1  24  BUGOV KH U/IN
E2  1   BUGOV O S/IN
E3  22 .. > BUGOVICS/IN
E4  4   BUGOVICS/PA
E5  5   BUGOVICS G/IN
E6  17  BUGOVICS J/IN
E7  4   BUGOVICS J/PA
E8  3   BUGOVSKI/IN
E9  1   BUGOVSKI/PA
E10 1   BUGOVSKI D S/IN
E11 1   BUGOVSKI N V/IN
E12 1   BUGOVSKI N V/PA

Search for the appropriate E numbers.

=> S E6-7
   17 "BUGOVICS J"/IN
   4 "BUGOVICS J"/PA
L1  17 ("BUGOVICS J"/IN OR "BUGOVICS J"/PA)

Displaying some of the documents in the free SCAN format.

=> D SCAN
L1  17 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1  Decoding equipment for digital information - enables encoding and
decoding of digital information, with decoding unit guaranteeing access to
those authorised and excluding those unauthorised
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): 3
L1  17 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1  Computer-aided financial transaction system - has customer and dealer
systems connected by secure transmission system
L1  17 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1  Entry device for financial transactions using an automatic teller card
L1  17 ANSWERS WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
T1  Adaptive fuel as substitute for wood fuel pellets obtained by crushing
seed or fruit admixed with calcium oxide
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1): END
34.1.2 Search in PATDPAFULL

== FIL PATDPAFULL
FILE 'PATDPAFULL' ENTERED
COPYRIGHT (C) 2013 DPMA

Again we start with an EXPAND on the name in /IN and /PA..

== E BUGOVICS/IN, PA
E1 1 BUGOSH MARK J STERLING HEIGHTS MICHIGAN 48313 US/IN
E2 1 BUGOSLAW/IN
E3 8 BUGOVICS/IN
E4 3 BUGOVICS/PA
E5 2 BUGOVICS JOZSEF 04430 DOELZIG DE/IN
E6 2 BUGOVICS JOZSEF 06254 ZWEIMEN DE/IN
E7 2 BUGOVICS JOZSEF 06886 LUTHERSTADT WITTENBERG DE/IN
E8 1 BUGOVICS JOZSEF O 4252 LUTHERSTADT EISLEBEN DE/IN
E9 1 BUGOVICS JOZSEF O 4600 WITTENBERG LUTHERSTADT DE/IN
E10 1 BUGOVICS, JOZSEF, O-4252 LUTHERSTADT EISLEBEN, DE/PA
E11 2 BUGOVICS, JOZSEF, O-4600 WITTENBERG LUTHERSTADT, DE/PA
E12 1 BUGREEV/IN

In this search we find 15 documents.

== S E5-11
2 "BUGOVICS JOZSEF 04430 DOELZIG DE"/IN
2 "BUGOVICS JOZSEF 06254 ZWEIMEN DE"/IN
2 "BUGOVICS JOZSEF 06886 LUTHERSTADT WITTENBERG DE"/IN
1 "BUGOVICS JOZSEF O 4252 LUTHERSTADT EISLEBEN DE"/IN
1 "BUGOVICS, JOZSEF, O 4252 LUTHERSTADT EISLEBEN, DE"/PA
2 "BUGOVICS, JOZSEF, O 4600 WITTENBERG LUTHERSTADT, DE"/PA
L2 9 "BUGOVICS JOZSEF 04430 DOELZIG DE"/IN OR "BUGOVICS JOZSEF 06254 ZWEIMEN DE"/IN OR "BUGOVICS JOZSEF 06886 LUTHERSTADT WITTENBERG DE"/IN OR "BUGOVICS JOZSEF O 4252 LUTHERSTADT EISLEBEN DE"/IN

Display of the titles.

== D 1-11 TI
L2 ANSWER 1 OF 9 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Adaptiver Brennstoff aus Oelpresskuchen in Form von Pellets
IN Bugovics, Jozsef, 06254 Zweimen, DE; Ysenburg und Buedingen, Sylvester Fuerst zu, 63654 Buedingen, DE
PA Neo Energy AG, Baar, CH
L2 ANSWER 2 OF 9 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Beweissicheres und schnelles WORM-Speichersystem auf Festplattenbasis
IN Bugovics, Jozsef, 06254 Zweimen, DE
PA Memory Data GmbH, 06254 Zweimen, DE
L2 ANSWER 3 OF 9 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Verfahren zur Funktion, Implementation sowie Selbstkonfiguration einer Finanz-Transaktions-Schnittstelle
IN Bugovics, Jozsef, 04430 Doelzig, DE
PA Me Technology Europe GmbH, 04430 Doelzig, DE
L2 ANSWER 4 OF 9 PATDPAFULL COPYRIGHT 2013 DPMA on STN
TI Verfahren zur universellen Kreditkartenutzung
IN Bugovics, Jozsef, 04430 Doelzig, DE
PA Me Technology Europe GmbH, 04430 Doelzig, DE

Do the documents from PATDPAFULL concern the same inventions as the documents found in DWPI? To test this we use the TRANSFER command. 16 documents are found in PATDPAFULL now.

== TRANSFER L1 1- PN
L3 TRANSFER L1 1- PN : 43 TERMS
L4 16 L3
Search examples

There are some documents that we did not find by the name search. However, there are other names in these documents.

=> S L4 NOT L2
L6  1 L4 NOT L2

=> D 1- TI IN PA

Using the crossover options a better result can be achieved than by searching in one file only. In DWPI the inventor name BUGOVICS came from other family members. Have we found all the documents of the inventor BUGOVICS in DWPI?

=> S L2 NOT L4
L6  1 L2 NOT L4

=> D TI IN PA PI

This German utility model was not found. German utility models are covered since 1996 only.
34.2 Example 2

Searching for patents of Wolfgang Adamek.

34.2.1 Search in INPADOCDB

=> FILE INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2016 European Patent Office / FIZ Karlsruhe

In INPADOCDB it is always recommended to search the standardised field INS together with IN.

=> E ADAMEK WOLFGANG/IN,INS
E1  7  ADAMEK WOLFGANG/IN
E2  7  ADAMEK WOLFGANG/INS
E3 39 => ADAMEK WOLFGANG/IN
E4 47  ADAMEK WOLFGANG/INS
E5  7  ADAMEK WOLFGANG DIPL ING/IN
E6 15  ADAMEK WOLFGANG DIPL ING/INS
E7  5  ADAMEK WOLFGANG DIPL ING S3797 LOHMAR DE/IN
E8  1  ADAMEK WOLFGANG ING/IN
E9  1  ADAMEK WOLFGANG ING/INS
E10 1  ADAMEK ZBI GNI EW/IN
E11 4  ADAMEK ZBI GNI EW/INS
E12 8  ADAMEK ZDENEK/IN

=> S E3 - E9
L1  61 ("ADAMEK WOLFGANG"/IN OR "ADAMEK WOLFGANG"/INS OR "ADAMEK WOLFGANG DIPL ING"/IN OR "ADAMEK WOLFGANG DIPL ING S3797 LOHMAR DE"/IN OR "ADAMEK WOLFGANG ING"/IN OR "ADAMEK WOLFGANG ING"/INS)

Maybe the name was even entered in a wrong order.

=> E WOLFGANG ADAMEK/IN,INS
E1  1  WOLFGANG ADAMEKU/IN
E2  1  WOLFGANG ADAMEKU/INS
E3 10 => WOLFGANG ADAMEK/IN
E4  3  WOLFGANG ADAMEK/INS
E5  3  WOLFGANG ADAMETZ/IN
E6  1  WOLFGANG ADAMETZ/INS
E7  1  WOLFGANG ADAMI TZKI/IN
E8  3  WOLFGANG ADAMI TZKI/INS
E9  9  WOLFGANG ADAMS/IN
E10 1  WOLFGANG ADEDFI NGER/IN
E11 1  WOLFGANG ADERHOLD/IN
E12 8  WOLFGANG ADERHOLD/INS

=> S E3 - E4
L2  11 ("WOLFGANG ADAMEK"/IN OR "WOLFGANG ADAMEK"/INS)

=> S L1 OR L2
L3  63 L1 OR L2

It is also a good idea to search the first and family name separately in the /IN field and combine them by (S) proximity. (S) must be entered manually because there is a mixed index (no interpretation) and no implied proximity in /IN.

=> S (WOLFGANG(S) ADAMEK)/IN,INS
L4  64 (WOLFGANG(S) ADAMEK)/IN,INS

=> S L4 NOT L3
L5  1 L4 NOT L3

One more document was found where the inventor field was filled incorrectly.

=> D
L5  ANSWER 1 OF 1  INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN
AN  40437142 INPADOCDB
The inventor names should also be searched in the patent assignee field /PA. Sometimes only the patent assignee field is filled, e.g. for German utility models.

=> S (ADAMEK(S) WOLFGANG) /I N, I N S, PA, PAS
L6 69 (ADAMEK(S) WOLFGANG) /I N, I N S, PA, PAS

=> S L6 NOT L4
L7 5 L6 NOT L4

=> D

L7 ANSWER 1 OF 5 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN
AN 84142121 INPADOCDB ED 20160114 EW 201602 UP 20160114 UW 201606
FN 56247754
TI Trinkgefaess mit Ueberschwappschutz.
TL German
PA ADAMEK, WOLFGANG
PAS ADAMEK WOLFGANG, DE
DT Utility Model
PI DE 202015007991 U1 20151214 German
PIT DEU1 UTILITY MODEL
DAV 20151214 printed with grant
STA GRANTED
DF 20160121
AI DE 2015-202015007991 U 20151119
AIT DEU Application for a utility model
PRAI DE 2015-202015007991 U 20151119 (DEU, 20160114, Y)
PRAIT DEU Application for a utility model
XPD 20251130
35  Search by name (Patent assignee) example

35.1  Example 1
We are looking for patents by Philips NV in Russia or in the former Soviet Union, respectively.

35.1.1  Search in INPADOCDB

We use QUERY because we expect a large number of patents with the publication countries SU or RU.

The search in the /PA field yields a large number of patents.

Combining the two results by OR.

Let us now see what documents were found with /PAS but not with /PA.

Due to the transfer of the names into Cyrillic letters Ph has become F. The PAS field holds the correct Latin spelling.

The /PAS field is only available in INPADOC. It should be used with name searches in addition to /PA to obtain a better result.
35.1.2 Search in DWPI

We search the /PA field for Philips.

We search the /PA field for Philips.

In the case of Philips the patent assignee code in the /PACO field may also be used.

With PACO certain inconsistencies in the names can be balanced.

Pivot hood assembly for roof mounted ventilation shaft controls flow of air entering or exiting the ventilation shaft when the attachment framework is fixed to the ventilation shaft and the hood pieces are...
pivoted to a closed position

PA (ADAM-I) ADAMS J; (KLEP-I) KLEPFER S; (PHIL-I) PHILIPS D

=> S L6 NOT L7

L9 103 L6 NOT L7

By using PACO other inventor or assignee names are excluded.

=> D TI PA 1-3

L9 ANSWER 1 OF 103 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Computer-implemented method for reporting impact credit ratings of rated legal entity based on evaluated status of retrieved trigger
PA (MORG-N) MORGAN STANLEY; (PHIL-I) PHILIPS M; (RAJA-I) RAJAMANUR V S

L9 ANSWER 2 OF 103 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Method for estimating noise in reconstructed image e.g. computed tomography image, involves dividing reconstructed image into multiple segments, and estimating local noise power spectral density by multi-resolution transformation
PA (UGNT-C) UNIV GENT; (IBBT-N) IBBT VZW; (GOOS-I) GOOSSENS B; (PHIL-I) PHILIPS W; (PIZU-I) PIZURICA A

L9 ANSWER 3 OF 103 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
TI Organic electroluminescent device, useful as an organic LED, comprises a substrate, first and second electrodes formed on the substrate, a light-emitting layer formed between the first and the second electrodes, and a hole-blocking layer
PA (GLDS-C) LG DISPLAY CO LTD; (GLDS-C) LG ELECTRONICS INC; (GLDS-C) LG PHILIPS LCD CO LTD

35.2 Example 2

Searching for patents of the firm Buckeye, which works in the technical area of cellulose.

35.2.1 Search in DWPI

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS

First we try to EXPAND on the name. We cannot be sure to get all spelling variations of the name.

=> E BUCKEYE/PA 25
E1 1 BUCKEY D/PA
E2 1 BUCKEY J C/PA
E3 188 ... => BUCKEYE/PA
E4 2 BUCKEYE BLUEGRASS FARMS/PA
E5 4 BUCKEYE BLUEGRASS FARMS INC/PA
E6 2 BUCKEYE BOXES INC/PA
E7 1 BUCKEYE BOYS LLC/PA
E8 1 BUCKEYE CABLEVISION INC/PA
E9 51 BUCKEYE CELLULOSE CORP/PA
E10 1 BUCKEYE DENTAL LLC/PA
E11 2 BUCKEYE FEED MILLS INC/PA
E12 2 BUCKEYE FIRE EQUIP CO/PA
E13 1 BUCKEYE FORGE DIV-GULF &/PA
E14 31 BUCKEYE INT INC/PA
E15 1 BUCKEYE MACHINE FABRICATORS INC/PA
E16 4 BUCKEYE MFG CO/PA
E17 1 BUCKEYE MFG INC/PA
E18 16 BUCKEYE MOLDING CO/PA
E19 1 BUCKEYE PHARM LLC/PA
E20 2 BUCKEYE STAMPING CO/PA
E21 1 BUCKEYE STAMPING CO INC/PA
E22 1 BUCKEYE STEEL CAST/PA
E23 3 BUCKEYE STEEL CASTING/PA
E24 2 BUCKEYE STEEL CASTING CO/PA
E25 25 BUCKEYE STEEL CASTINGS CO/PA
Now we select all patent assignees and have a look at the result. Be careful with a big answer set: every patent assignee selected will be charged. Thus, use only a limited number of documents for testing or use ANALYZE rather than SELECT. In this case (188 documents) ANALYZE is preferable over SELECT in DWPI.

```
=> ANALYZE L1 1- PA
L2 ANALYZE L1 1- PA : 87 TERMS
=> D 1-
L2 ANALYZE L1 1- PA : 87 TERMS

TERM # # OCC # DOC % DOC PA
------- ------- ------- ------- ------
  1  51      51  27.13 BUCKEYE CELLULOSE CORP
  2  31      31  16.49 BUCKEYE INT INC
  3  27      27  14.36 BUCKEYE TECHNOLOGIES INC
  4  25      25  13.30 BUCKEYE STEEL CASTINGS CO
  5  19      19  10.11 BKI HOLDING CORP
  6  16      16   8.51 BUCKEYE MOLDING CO
  7  15      15   7.98 PROCTER & GAMBLE CO
  8   9       9   4.79 COLUMBUS STEEL CASTINGS CO
  9   4       4   2.13 BUCKEYE BLUEGRASS FARMS INC
 10   4       4   2.13 BUCKEYE MFG CO
 11   4       4   2.13 PROCTER & GAMBLE CO
 12   4       4   2.13 THE BUCKEYE CELLULOSE CORP
 13   3       3   1.60 BOEHMER B E
 14   3       3   1.60 BUCKEYE STEEL CASTING CO
 15   2       2   1.06 BUCKEYE BLUEGRASS FARMS
 16   2       2   1.06 BUCKEYE BOXES INC
 17   2       2   1.06 BUCKEYE FEED MILLS INC
 18   2       2   1.06 BUCKEYE FIRE EQUIP CO
 19   2       2   1.06 BUCKEYE STAMPING CO
 20   2       2   1.06 BUCKEYE STEEL CASTING CO
 21   2       2   1.06 BUCKEYE STEPHENS LTD
 22   2       2   1.06 COOK J T
 23   2       2   1.06 GROSS J R
 24   2       2   1.06 HURLEY J S
 25   2       2   1.06 MOOSE R T
 26   2       2   1.06 PROCTER & GAMBLE CELLULOSE CO
 27   2       2   1.06 ROBERTS J H
 28   2       2   1.06 SCHOGGEN H L
 29   1       1   0.53 ANDERSON S E
 30   1       1   0.53 ANDERSON S
 31   1       1   0.53 BAILEY M R
 32   1       1   0.53 BAILEY R
 33   1       1   0.53 BAKKAI CELLULOSE CO
 34   1       1   0.53 BELL R I
 35   1       1   0.53 BKI HOLDING CORP INC
 36   1       1   0.53 BKI HOLDING INC
 37   1       1   0.53 BOEHMER B
 38   1       1   0.53 BOEHMER R K
 39   1       1   0.53 BOOKER R
 40   1       1   0.53 BSC ACQUISITION INC
 41   1       1   0.53 BUCKEYE BOYS LLC
 42   1       1   0.53 BUCKEYE CABLEVISION INC
 43   1       1   0.53 BUCKEYE DENTAL LLC
 44   1       1   0.53 BUCKEYE FORGE DIV-GULF &
 45   1       1   0.53 BUCKEYE MACHINE FABRICATORS INC
 46   1       1   0.53 BUCKEYE MFG INC
 47   1       1   0.53 BUCKEYE PHARM LLC
 48   1       1   0.53 BUCKEYE STAMPING CO INC
 49   1       1   0.53 BUCKEYE STEEL CAST
 50   1       1   0.53 BUCKEYE STEEL CO
 51   1       1   0.53 BUCKEYE STEPHENS
 52   1       1   0.53 BUCKEYE WESTERN INC
```
### Guide to STN Patent Databases

53 1 1 0.53 CLEVELAND CLINIC FOUND
54 1 1 0.53 DAVIES YOUNG CO
55 1 1 0.53 DEAN W L
56 1 1 0.53 FIDLER J
57 1 1 0.53 FORAND K M
58 1 1 0.53 KING M K
59 1 1 0.53 MATERIALS RES CORP
60 1 1 0.53 MCGEE K
61 1 1 0.53 MILLIGAN B A
62 1 1 0.53 MOORE D R
63 1 1 0.53 MOOSE L A
64 1 1 0.53 MORRIS D
65 1 1 0.53 MORTON G H
66 1 1 0.53 MURPHY P M
67 1 1 0.53 NAT TISSUE CO LLC
68 1 1 0.53 OWENS J W
69 1 1 0.53 PFIZER PROD INC
70 1 1 0.53 PHILLIPS A F
71 1 1 0.53 PINKSTOCK S R
72 1 1 0.53 PRAXAIR ST TECHNOLOGY INC
73 1 1 0.53 REX BUCKEYE CO INC
74 1 1 0.53 RICHET T
75 1 1 0.53 SCOTT J B
76 1 1 0.53 SKIRIUS S A
77 1 1 0.53 SPEAKMAN J D
78 1 1 0.53 STECKER T W
79 1 1 0.53 STOREY L M
80 1 1 0.53 SUNDARA N R
81 1 1 0.53 "BUCKEYE CELLULOSE CORP"/PA
82 1 1 0.53 UNIVERSITY CARBIDE COATINGS SERVICES TECHNOLOGY INC
83 1 1 0.53 VAN EENAM D N
84 1 1 0.53 VEGSO W
85 1 1 0.53 WADE C J
86 1 1 0.53 WILLI CUTT J
87 1 1 0.53 WOOD M L

Now we search the correct entries from the list.

=> SEL 1 12 33 81
E1 THROUGH E4 ASSIGNED

=> S E1-E4

=> S (BUCKEYE OR BAKKAI)(S)CELLU?)/PA

A search with (S) proximity in this case yields the same result.

=> S ((BUCKEYE OR BAKKAI)(S)CELLU?)/PA

### 35.3 Example 3

Searching for patents of the company Haarmann & Reimer. The company merged with DRAGOCO into a new company named SYMRISE in 2003.

#### 35.3.1 Search in INPADOCDB

=> FIL INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2016 European Patent Office / FIZ Karlsruhe

First one should use EXPAND to identify the various spellings like in the previous examples. To find all spellings it is often useful to
Search examples
enter only the first word of the name. We use both the PA and PAS fields again.

=> E HAARMANN/PA,PAS 25
E1 1 HAARMAN REYMER CORP/PA
E2 1 HAARMAN REYMER CORP/PAS
E3 1594 ... => HAARMANN/PA
E4 1607 HAARMANN/PAS
E5 1 HAARMANN AND REIMER/PA
E6 1 HAARMANN AND REIMER/PAS
E7 1 HAARMANN AND REIMER CORP/PA
E8 1 HAARMANN AND REIMER CORP/PAS
E9 1 HAARMANN AND REIMER GMB H/PA
E10 1 HAARMANN AND REIMER GMB H/PAS
E11 38 HAARMANN AND REIMER GMBH/PA
E12 38 HAARMANN AND REIMER GMBH/PAS
E13 1 HAARMANN AND REIMER USA/PA
E14 1 HAARMANN AND REIMER USA/PAS
E15 2 HAARMANN ANNEGRET/PA
E16 2 HAARMANN ANNEGRET/PAS
E17 27 HAARMANN ARNOLD DR ING/PA
E18 36 HAARMANN ARNOLD DR ING/PAS
E19 1 HAARMANN ARNOLD DR ING 4600 DORTMUND/PA
E20 12 HAARMANN AUGUST/PAS
E21 1 HAARMANN AUGUST DR/PAS
E22 1 HAARMANN AUGUST DR ING/PA
E23 1 HAARMANN AUGUST DR ING/PAS
E24 1 HAARMANN BEIMER/PA
E25 1 HAARMANN BEIMER/PAS

=> E 25
E26 3 HAARMANN CO WERKZEUGFABRIK/PAS
E27 3 HAARMANN CO WERKZEUGFABRIK 5630 REMScheid/PA
E28 1 HAARMANN CO WERKZEUGFABRIK 5630 REMScheid DE/PA
E38 1 HAARMANN ET REIMER/PA
E39 1 HAARMANN ET REIMER/PAS
E40 16 HAARMANN ET REIMER GMBH/PA
E41 10 HAARMANN ET REIMER GMBH DT/PA
E42 1 HAARMANN ET REIMER GMBH DT/PAS
E47 1 HAARMANN G REIMER GMBH/PA
E48 1 HAARMANN G REIMER GMBH/PAS
... E120 943 HAARMANN REIMER GMBH/PA
E121 1198 HAARMANN REIMER GMBH/PAS
E122 24 HAARMANN REIMER GMBH 3450 HOLZMINDEN/PA
E123 40 HAARMANN REIMER GMBH 3450 HOLZMINDEN DE/PA
E124 1 HAARMANN REIMER GMBH 37603 HOLZMINDEN/PA
E125 47 HAARMANN REIMER GMBH 37603 HOLZMINDEN DE/PA
... E168 1 HAARMANNS REIMER CORP/PA
E169 1 HAARMANNS REIMER CORP/PAS

There are scores of different spellings in particular for hyphenated names. It is useful to check different spellings (e.g. type the first part of the name and then directly a hyphen without blank) – but in our case there is no additional hit.

=> E HAARMANN- /PA, PAS
E1 3 HAARMANN WOLFRAM/PA
E2 4 HAARMANN WOLFRAM/PAS
E3 0 ... => HAARMANN- /PA
E4 0 HAARMANN- /PAS
E5 1 HAARMANNS /PA
E6 1 HAARMANNS/PAS

The strategy shown in example 2 (searching for one part of the name → ANALYZE/SELECT → joining the parts of the name with
(S) proximity is an essential aid for searching hyphenated names.

Only the search with (S) proximity, based on the ANALYZE result, is shown here.

```
=> S ((HAARMANN OR HAARMAN OR HAAMAN OR HAARMANNS) (S) (REIMER OR RAI MA OR RE IMER OR REIMERMPANY OR REYMER OR BEIMER OR LEI MER OR REI NER OR REMER)) / PA, PAS
L1  1404 ((HAARMANN OR HAARMAN OR HAAMAN OR HAARMANNS) (S) (REIMER OR RAI MA OR RE IMER OR REIMERMPANY OR REYMER OR BEIMER OR LEI MER OR REI NER OR REMER)) / PA, PAS
```

A change of the patent assignee name, due to a merger or change of the patent assignee, is recorded in the legal status field, LSPA, only. It is often not entered in the PA or PAS fields. You should complement your search with the LSPA field. It is possible to take the field PASS, which covers PA, PAS and LSPA.

```
=> S ((HAARMANN OR HAARMAN OR HAAMAN OR HAARMANNS) (S) (REIMER OR RAI MA OR RE IMER OR REIMERMPANY OR REYMER OR BEIMER OR LEI MER OR REI NER OR REMER)) / PA, PAS, LSPA
L2  1543 ((HAARMANN OR HAARMAN OR HAAMAN OR HAARMANNS) (S) (REIMER OR RAI MA OR RE IMER OR REIMERMPANY OR REYMER OR BEIMER OR LEI MER OR REI NER OR REMER)) / PA, PAS, LSPA
```

In our case there are 139 more hits.

```
=> S L2 NOT L1
L3  139 L2 NOT L1

=> D PA PAS HIT 1-3
L3  ANSWER 1 OF 139 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN
PA SYMRISE GMBH & CO. KG
PAS SYMRISE GMBH & CO KG, DE
LEGAL STATUS HIT
AN 54239504 INPADOCDB 20070831 USAS ASSIGNMENT
HAARMANN & REIMER, GERMANY
ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: KOCH, OSKAR; DI LK, ERICH; LANGNER, ROLAND; AND OTHERS; REEL/FRAME: 019771/0271; SIGNING DATES FROM 20020111 TO 20020115
CHG Change of Owner, Inventor, Applicant ..................................................20090212

L3  ANSWER 2 OF 139 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN
PA MCDERMOTT KEITH J.; ZHUANG ZIJIE JUDY; SMITH LESLIE C.
PA SYMRISE, INC
PAS SYMRISE INC, US
LEGAL STATUS HIT
AN 49682783 INPADOCDB 20020417 USAS ASSIGNMENT
HAARMANN & REIMER CORPORATION, NEW JERSEY
ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: MCDERMOTT, KEITH J.; ZHUANG, ZIJIE JUDY; SMITH, LESLIE C.; REEL/FRAME: 013480/0516; SIGNING DATES FROM 20021014 TO 20021018
CHG Change of Owner, Inventor, Applicant ..................................................20090320

L3  ANSWER 3 OF 139 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN
PA GUPTA GARGI; LAMMERT MATTHIAS; MCDERMOTT KEITH
LEGAL STATUS HIT
AN 49638367 INPADOCDB 20020417 USAS ASSIGNMENT
HAARMANN & REIMER, NEW JERSEY
ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS: GUPTA, GARGI; LAMMERT, MATTHIAS; MCDERMOTT, KEITH; REEL/FRAME: 012821/0889
```
We are looking for the Patent Assignee Code of Kodak.

### 35.4.1 Search in DWPI

We use the /PACO field to find entries that might be applicable.

<table>
<thead>
<tr>
<th>E#</th>
<th>FREQUENCY</th>
<th>AT</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>0</td>
<td>1</td>
<td>KODAIRA SANGYO KK/PACO</td>
</tr>
<tr>
<td>E2</td>
<td>0</td>
<td>1</td>
<td>KODAIRA SEI SAKUSHO KK/PACO</td>
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<td>0</td>
<td>6</td>
<td>--&gt; KODAK/PACO</td>
</tr>
<tr>
<td>E4</td>
<td>0</td>
<td>1</td>
<td>KODAK AG/PACO</td>
</tr>
<tr>
<td>E5</td>
<td>0</td>
<td>1</td>
<td>KODAK ALARI S I NC/PACO</td>
</tr>
<tr>
<td>E6</td>
<td>0</td>
<td>1</td>
<td>KODAK AUSTRALASIA PTY LTD/PACO</td>
</tr>
<tr>
<td>E7</td>
<td>0</td>
<td>1</td>
<td>KODAK BET-GMBH/PACO</td>
</tr>
<tr>
<td>E8</td>
<td>0</td>
<td>1</td>
<td>KODAK BRAZIL-EIRA COMERCIO &amp; IND LTD/PACO</td>
</tr>
<tr>
<td>E9</td>
<td>0</td>
<td>1</td>
<td>KODAK CANADA I NC/PACO</td>
</tr>
<tr>
<td>E10</td>
<td>0</td>
<td>1</td>
<td>KODAK CLINICAL DIAGNOSTICS LTD/PACO</td>
</tr>
<tr>
<td>E11</td>
<td>0</td>
<td>1</td>
<td>KODAK CO LTD/PACO</td>
</tr>
<tr>
<td>E12</td>
<td>0</td>
<td>1</td>
<td>KODAK COLOR DRAWING INC/PACO</td>
</tr>
</tbody>
</table>

The code for a probable entry can be displayed with this command. The code ending -C is a unique code for a company having many patent publications. The codes ending -N are non-unique and are used for companies having few patent publications.

<table>
<thead>
<tr>
<th>E#</th>
<th>FREQUENCY</th>
<th>AT</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>0</td>
<td>1</td>
<td>--&gt; KODAK/PACO</td>
</tr>
<tr>
<td>E2</td>
<td>1083</td>
<td></td>
<td>CODE APPL-N/PACO</td>
</tr>
<tr>
<td>E3</td>
<td>85335</td>
<td></td>
<td>CODE CHEN-N/PACO</td>
</tr>
<tr>
<td>E4</td>
<td>31155</td>
<td></td>
<td>CODE EAST-C/PACO</td>
</tr>
<tr>
<td>E5</td>
<td>623</td>
<td></td>
<td>CODE KODA-N/PACO</td>
</tr>
<tr>
<td>E6</td>
<td>46880</td>
<td></td>
<td>CODE SI CH-N/PACO</td>
</tr>
<tr>
<td>E7</td>
<td>5536</td>
<td></td>
<td>CODE SUPE-N/PACO</td>
</tr>
</tbody>
</table>

With the DEF relation all entries belonging to this code are displayed.

<table>
<thead>
<tr>
<th>E#</th>
<th>FREQUENCY</th>
<th>AT</th>
<th>TERM</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>31155</td>
<td>1</td>
<td>--&gt; EAST-C/PACO</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>DEF CANADIAN KODAK/PACO</td>
</tr>
<tr>
<td>E3</td>
<td></td>
<td></td>
<td>DEF CHENGDU KODAK STAR PRINTING EQUIP CO LTD/PACO</td>
</tr>
<tr>
<td>E4</td>
<td></td>
<td></td>
<td>DEF EASTMAN KK/PACO</td>
</tr>
<tr>
<td>E5</td>
<td></td>
<td></td>
<td>DEF EASTMAN KODAK CO/PACO</td>
</tr>
<tr>
<td>E6</td>
<td></td>
<td></td>
<td>DEF EASTMAN KODAK JAPAN KK/PACO</td>
</tr>
<tr>
<td>E7</td>
<td></td>
<td></td>
<td>DEF EASTMAN SPECI ALITIES HOLDING S CORP/PACO</td>
</tr>
<tr>
<td>E8</td>
<td></td>
<td></td>
<td>DEF EASTMAN TECHN I NC/PACO</td>
</tr>
<tr>
<td>E9</td>
<td></td>
<td></td>
<td>DEF KODAK AG/PACO</td>
</tr>
<tr>
<td>E10</td>
<td></td>
<td></td>
<td>DEF KODAK AUSTRALASIA PTY LTD/PACO</td>
</tr>
<tr>
<td>E11</td>
<td></td>
<td></td>
<td>DEF KODAK BET-GMBH/PACO</td>
</tr>
<tr>
<td>E12</td>
<td></td>
<td></td>
<td>DEF KODAK BRAZIL-EIRA COMERCIO &amp; IND LTD/PACO</td>
</tr>
<tr>
<td>E13</td>
<td></td>
<td></td>
<td>DEF KODAK CLINICAL DIAGNOSTICS LTD/PACO</td>
</tr>
<tr>
<td>E14</td>
<td></td>
<td></td>
<td>DEF KODAK CO LTD/PACO</td>
</tr>
<tr>
<td>E15</td>
<td></td>
<td></td>
<td>DEF KODAK COLOR DRAWING INC/PACO</td>
</tr>
<tr>
<td>E16</td>
<td></td>
<td></td>
<td>DEF KODAK COLOR DRAWING LL CO/PACO</td>
</tr>
<tr>
<td>E17</td>
<td></td>
<td></td>
<td>DEF KODAK DIGITAL PROD OF JAPAN/PACO</td>
</tr>
<tr>
<td>E18</td>
<td></td>
<td></td>
<td>DEF KODAK GRAPHIC COMMUNICATION GMBH/PACO</td>
</tr>
<tr>
<td>E19</td>
<td></td>
<td></td>
<td>DEF KODAK GRAPHIC COMMUNICATIONS CANADA CO/PACO</td>
</tr>
</tbody>
</table>
35.5 Example 5

Finding related company names of the patent assignee Symrise.

35.5.1 Search in HCAPLUS

```bash
=> FIL HCAPLUS
FILE 'HCAPLUS' ENTERED
COPYRIGHT (C) 2013 AMERICAN CHEMICAL SOCIETY (ACS)

The CO (Corporate Name) field has a thesaurus for the name entries of major companies (since 1907).
EXPAND on the company name. If there is an entry in the Associated Terms (AT) column this indicates that thesaurus terms are available.

=> E SYMRISE/CO
E# FREQUENCY AT TERM
1 1 SYMOZ INC/CO
2 1 SYMPTOM TOLERABILITY RESPONSE TO EXERCISE TRIAL OF CAN DESEARTAN CILEXETIL IN HEART FAILURE STRETCH INVESTIG
3 15
4 64 SYMRISE AG/CO
5 2 SYMRISE ASIA PACIFIC PTE LTD/CO
6 2 SYMRISE LTD/CO
7 1 SYMRISE G M B H/CO
8 151 2 SYMRISE G M B H CO K G/CO

********** END **********
Search examples

EXPAND on an E-number of an appropriate name entry, followed by +ALL to see all thesaurus entries. The preferred company name is indicated by NAME.

=> E E8+ALL
E1 203 NAME SYMRISE GMBH CO KG/CO
E2 151 => SYMRISE GMBH CO KG/CO
********** END **********

EXPAND on the E-number of the preferred name followed by +ALL to view all related company names.

=> E E1+ALL
E1 0 CNUM CAS1027755/CO
E2 203 => SYMRISE GMBH CO KG/CO
NOTE 2003: Haarmann & Reimer GmbH and Dragoco, Inc. merged to form Symrise GmbH & Co. KG
E3 106 RT1 DRAGOCO/CO
E4 26 RT1 DRAGOCO GMBH/CO
E5 6 RT1 DRAGOCO GMB and CO AG/CO
E6 17 RT1 DRAGOCO GMB and CO AG/CO
E7 24 RT2 DRAGOCO GMB and CO AG/CO
E8 6 RT2 DRAGOCO GMB and CO AKTIEGESELLSCHAFT/CO
E9 5 RT1 DRAGOCO GMBH UND CO AG/CO
E10 5 RT1 DRAGOCO GMBH UND CO AG/CO
E11 5 RT1 DRAGOCO GMBH UND CO GMBH/CO
E12 47 RT2 DRAGOCO GMBH UND CO GMBH/CO
E13 5 RT1 DRAGOCO HOLZMINDEN/CO
E14 10 RT1 DRAGOCO INC/CO
E15 5 RT1 DRAGOCO SPEZIALFABRIK KONZ REICH UND AROMASTOFFE GMBH/CO
E16 9 RT1 DRAGOCO SPEZIALFABRIK KONZ REICH UND AROMASTOFFE GMBH/CO
E17 11 RT1 DRAGOCO SPEZIALFABRIK KONZ REICH UND AROMASTOFFE GMBH/CO
E18 22 RT1 HAARMANN AND REIMER CORP/CO
E19 1 RT1 HAARMANN AND REIMER LAB/CO
E20 33 RT1 HAARMANN REIMER/CO
E21 16 RT1 HAARMANN REIMER CHEMISCHE FABRIK ZU HOLZMINDEN GMBH/CO
E22 120 RT1 HAARMANN REIMER GMBH/CO
E23 77 RT2 HAARMANN REIMER GMBH/CO
E24 190 RT1 HAARMANN UND REIMER GMBH/CO
E25 21 RT1 HAARMANN UND REIMER GMBH/CO
E26 4 RT1 SYMRISE GMBH/CO
E27 151 RT2 SYMRISE GMBH/CO
E28 25 RT1 SYMRISE GMBH AND CO KG/CO
E29 4 RT1 SYMRISE GMBH AND CO KG/CO
********** END **********

After the names have been checked the search is done with the relationship code +ALL.

=> S E2+ALL
L1 1136 "SYMRISE GMBH CO KG"+ALL/CO (29 TERMS)

=> S L1 AND P/DT
8810496 P/DT
L2 743 L1 AND P/DT

With P/DT the result is restricted to patents.

It is necessary to complete this search in the /CO field with a search in the /PA (or /CS) field. The thesaurus is very useful to find different forms of a name.

If you are only interested in patents you can just search in the /PA field.
Guide to STN Patent Databases

=> S (DRAGOCO OR SYMRISE OR (HAARMAN OR HAARMANN OR HAARMER) (S) (REIMER)) / PA
   130 DRAGOCO/PA
   396 SYMRISE/PA
   1 HAARMAN/PA
   328 HAARMANN/PA
   0 HAARMER/PA
   338 REIMER/PA
   326 (HAARMAN OR HAARMANN OR HAARMER) (S) (REIMER)
L3  834 (DRAGOCO OR SYMRISE OR (HAARMAN OR HAARMANN OR HAARMER) (S) (REIMER)) / PA

=> S L3 OR L2
L4  834 L2 OR L3

=> S (DRAGOCO OR SYMRISE OR (HAARMAN OR HAARMANN OR HAARMER) (S) (REIMER)) / CS
   381 DRAGOCO/CS
   497 SYMRISE/CS
   1 HAARMAN/CS
   537 HAARMANN/CS
   0 HAARMER/CS
   557 REIMER/CS
   535 (HAARMAN OR HAARMANN OR HAARMER) (S) (REIMER)
L5  1395 (DRAGOCO OR SYMRISE OR (HAARMAN OR HAARMANN OR HAARMER) (S) (REIMER)) / CS

The search in the /CS field and restricting with P/DT yields 10 more documents.

=> S L5 AND P/DT
L6  8810496 P/DT
L7  844 L5 AND P/DT

=> S L6 NOT L4
L7  10 L6 NOT L4

These 10 documents are Defensive Publications (Research Disclosure). In these documents the company name is not entered in PA but in the CS field only.

=> D
L7  ANSWER 1 OF 10 HCAPLUS COPYRIGHT 2013 ACS on STN
AN  2007:116474 HCAPLUS
DN  146:527497
TI  Use of tropolone derivatives as antioxidants in food, nutraceutical, cosmetic and pharmaceutical compositions
AU  Schmaus, Gerhard; Franke, Heige; Pillai, Ravikumar
CS  Symrise, UK
SO  Research Disclosure (2006), 512(Dec.), P1558-P1561 (No. 512014)
CODEN: RSDSBB; ISSN: 0374-4353
PB  Kenneth Mason Publications Ltd.
DT  Journal; Patent
LA  English
FAN. CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
-------------- ---- -------------- --------------
PI  RD 512014 20061210 RD 2006-512014 20061210
PRAI RD 2006-512014 20061210
OS  MARPAT 146:527497

35.6 Example 6

Searching for the company QUALCOMM. In US patent applications often only the inventors are entered or there is no patent assignee given at all. Therefore the search should be completed with a search in the AG field (Agent, Representative).

(The AG (Agent) or LREP (Legal Representative) field is available in these databases: AUPATFULL, CANPATFULL, DWPI, EPFULL, FRANCEPAT, IFIALL, PATDPA, PATDPAFULL, PCTFULL, RUSSIAPAT, USPATFULL, USPAT2.)
35.6.1 Search in USPATALL

=> FIL USPATALL
FILE 'USPATFULL' ENTERED
CA INDEXING COPYRIGHT (C) 2013 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED
CA INDEXING COPYRIGHT (C) 2013 AMERICAN CHEMICAL SOCIETY (ACS)

=> S QUALCOMM/PA
L1 14887 QUALCOMM/PA

=> S QUALCOMM/AG
L2 8322 QUALCOMM/AG

=> S L1 OR L2
L3 18751 L1 OR L2

With the search in the /AG (/LREP) field we get 3864 more hits.

=> S L2 NOT L1
L4 3864 L2 NOT L1

=> D BIB
L4 ANSWER 1 OF 3864 USPATFULL on STN
AN 2011:50157 USPATFULL
TI Apparatus and Method of Searching Multi-Carrier Active Set Pilots
IN Lie, Gregory R., San Diego, CA, UNITED STATES
   Lin, Lijun, Escondido, CA, UNITED STATES
   Chan, Robert K., La Jolla, CA, UNITED STATES
   Gandhi, Manasi D., San Diego, CA, UNITED STATES
PI US 20110044294 A1 20110224
AI US 2009-544334 A1 20090820 (12)
DT Utility
FS APPLICATION
LREP QUALCOMM INCORPORATED, 5775 MOREHOUSE Dr., SAN DIEGO, CA, 92121, US
CLMN Number of Claims: 22
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 809

35.6.2 Search in DWPI

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS

=> S QUALCOMM/PA
L5 14070 QUALCOMM/PA

=> S QUALCOMM/AG
L6 7722 QUALCOMM/AG

=> S L1 OR L2
L7 14235 L5 OR L6

=> S L2 NOT L1
L8 165 L6 NOT L5

Often only the inventor is entered in the PA field. Extending the search to the /AG (/LREP) field at the publication level yields 165 more hits. The display of original data (Member) in addition to the invention level does not cause additional charges.

=> D BIB HIT
L8 ANSWER 1 OF 165 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
AN 2011-A62124 [201109] WPINDEX
TI Method for performing device management process on computing device from device management server, involves transmitting message to server indicating that intervening configuration data does not change
Guide to STN Patent Databases

DC  T01
IN  LUNDBLADE L G; THOMPSON P C
PA  (LUND-1) LUNDBLADE L G; (THOM-1) THOMPSON P C
CYC 1
PIA US 20110010383 A1 20110113 (201109)* EN 29[15]
US 2009-223635P 20090707
PRAI US 2009-551561 20090831
US 2009-223635P 20090707

Member(0001)
AG  QUALCOMM INCORPORATED
  AGA: 5775 MOREHOUSE DR., SAN DIEGO, CA, US
36  Family search example

36.1  Family search in several databases

For the US patent numbered 6,300,146 equivalent applications in other countries or additional US patents are sought.

36.2  Search in INPAFAMDB

=> FIL INPAFAMDB
FILE 'INPAFAMDB' ENTERED
COPYRIGHT (C) 2016 European Patent Office / FIZ Karlsruhe

=> S US 6300146 / PN
L1  1 US 6300146 / PN
   (US 6300146 / PN)

BRIEF is the default format. This format provides a good overview of the whole patent family.

=> D

AN  15190523 INPAFAMDB UPFB 20111229 UWF 201621
TI  HYBRID PACKAGE INCLUDING POWER MOSFET DIE AND CONTROL AND PROTECTION CIRCUIT DIE WITH SMALLER SENSE MOSFET.
   - Hybrid package including a power MOSFET die and a control and protection circuit die with a smaller sense MOSFET.
   - Ionizing bar and method of its fabrication.
INS  THIERRY VINCENT, FR; THIERRY VINCENT
PAS  INT RECTIFIER CORP, US
   - INT RECTIFIER CORP
IPC  H01L0023-34; [I,A]; H03K0017-08; [N,A]; H03K0017-082; [I,A]
PCT  H01L0024-49; H01L0024-45; H01L2224-45124; H01L2224-45144; H01L2224-48091; H01L2224-48137; H01L2224-48472; H01L2224-4903;
   ...
NCL  NCLM 257/690.000; 438/014.000
   NCLS 257/204.000; 257/226.000; 257/355.000; 257/426.000; 257/444.000; 257/500.000; 257/666.000; 257/691.000; 257/723.000; 257/724.000; 257/725.000; 257/728.000; 438/003.000; 438/005.000; 438/015.000; 438/017.000; 438/018.000;
   ...
INCL  INCLM 257/690.000; 438/014.000
   INCLS 257/728.000; 257/729.000; 257/724.000; 257/723.000; 257/691.000;
   ...
FCL  H01L0023-34 D
FTRM 5F036/A01; 5F036/B05; 5F136/B811; 5F136/DA01; 5F136/DA08; 5F136/DA21; 5F136/FA03; 5F136/H0A1; 5F136/H0A3
AB  (US 6137165 A)
   A power MOSFET die and a logic and protection circuit die are mounted on a common lead frame pad, such as a TO220 lead frame pad. The logic and protection circuit die includes a MOSFET that is connected in parallel.
   ...

PATENT FAMILY INFORMATION INPAFAMDB

--------- Publications ---------
DE 10031115  A1 20010125  DE 2000-10031115  A 20000626
JP 2000105855  A 20010119  JP 2000-109210  A 20000623
US 6137165  A 20001024  US 1999-344704  A 19990625
US 6300146  B1 20011009  US 2000-549280  A 20000414

--------- Applications ---------

--------- Priorities ---------
US 1999-344704  A 19990625
US 2000-549280  A 20000414

2 priorities, 4 applications, 4 publications (1 EPO simple family)
36.3 Search in INPADOCDB

=> FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2016 European Patent Office / FIZ Karlsruhe

=> S US 6300146/PN
L1 1 US 6300146 / PN
  (US6300146/PN)

It is recommended to use D BROWSE if family formats are going
to be displayed.

=> D BRO

If only equivalents of one country are wanted a 'Reduced Price Format' is recommended.

: FFAM, JP
L1 ANSWER 1 OF 1 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN

............
MEMBER 2
............

AN 39447716 INPADOCDB UW 201621
FN 15190523
TI HYBRID PACKAGE INCLUDING POWER MOSFET DIE AND CONTROL AND PROTECTION CIRCUIT DIE WITH SMALLER SENSE MOSFET.
TL English
IN THIERRY VINCENT
INS THIERRY VINCENT
PA INTERNATL RECTIFIER CORP
PAS INT RECTIFIER CORP
DT Patent
PI JP 2001015665 A 20010119
PIT JPA PUBLISHED UNEXAMINED PATENT APPLICATION (FROM 19790726 ONWARDS)
STF PRE-GRANT PUBLICATION
AI JP 2000-189210 A 20000623
AHT JPA Patent application
PRAI US 1999-344704 A 19990625 (USA, Y)
PRAIT USA Patent application
REC THERE ARE 7 CITED REFERENCES (7 PATENT, 0 NON PATENT) AVAILABLE FOR THIS RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.
ICV
ICM H01L0023-34
IPCR H01L0023-34 [I,A]; H03K0017-08 [N,A]; H03K0017-082 [I,A]
CPC H01L0024-49; H01L0024-45; H01L2224-45124; H01L2224-45144; H01L2224-48091; H01L2224-48137; H01L2224-48247; H01L2224-49372; H01L2224-49032; H01L2224-49051; H01L2224-49111; H01L2924-01004; H01L2924-01005;...
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FA AB; AI; AN; DAV; CGP; DT; FCL; FTRM; ICM; IN; INS; IPC; IPCR; PA; PAS; PI; PIT; PRAI; REP; TI

LEGAL STATUS
AN 39447716 INPADOCDB
20070626 JPA621 + WRITTEN REQUEST FOR APPLICATION EXAMINATION JAPANESE INTERMEDIATE CODE: A621
20070625 EXA Examination, Search Report
.............................................20130613
20070626 JPRD04 NOTIFICATION OF RESIGNATION OF POWER OF ATTORNEY JAPANESE INTERMEDIATE CODE: A7424
20070625
.............................................20130613
CFAM shows the publication details of all family members.

### CFAM

#### L1

**Answer 1 of 1**

**INPADOCDB Copyright 2016 EPO/FIZ KA on STN**

**PATENT FAMILY INFORMATION**

**AN 48656108 INPADOCDB**

| +-----------------+ | +-----------------+ |
| DE 10031115      | A1 20010125       | DE 2000-10031115 | A 20000626 |
| JP 2001015655    | A 20010119        | JP 2000-1892190 | A 20000623 |
| US 6137165       | A 20001024        | US 1999-344704  | A 19990625 |
| US 6300146       | B1 20011009       | US 2000-549280  | A 20000414 |

2 priorities, 4 applications, 4 publications (1 EPO simple family)

IFAM displays a short synopsis of the patent family in a table first. Then the complete documents are displayed, including the abstracts and legal status of all family members. The format has indented text labels and the full country name as headings.

### IFAM

#### L2

**Answer 1 of 1**

**INPADOCDB Copyright 2016 EPO/FIZ KA on STN**

**TITLE: Ionizing bar and method of its fabrication.**

**PATENT FAMILY INFORMATION**

**AN 48656108 INPADOCDB**

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| | Germany Federal Republic of (DE) | |
Guide to STN Patent Databases

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288
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=> SET LINELENGTH 101
SET COMMAND COMPLETED

DFAM shows the complete family (priority, application, publication details) and is sorted by the priority date. This is where we need the minimum line length of 101.

=> D DFAM
L2 ANSWER 1 OF 1 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN

PATENT FAMILY INFORMATION
AN 48656108 INPADOCDB

+-----------------PRAI-----------------+-------------------A+-----------------PI-------------------+

2 priorities, 4 applications, 4 publications (1 EPO simple family)
The line length should be reset to 80.

=> SET LINELENGTH 80
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36.4 Search in DWPI

=> FIL WPIND
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2016 THOMSON REUTERS

=> $ US 6300146/PN
L2 1 US 6300146 / PN
(US6300146/PN)
The field CR is displayed to find out if there are further documents belonging the patent family.

=> D CR FAM
L1 ANSWER 1 OF 1 WPINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
CR 2001-059644
PI US 6300146 B1 20011009 (200229)* EN 7[6]
FDT US 6300146 B1 Div ex US 6137165 A
PRAI US 2000-549280 20000414
US 1999-344704 19990625

The cross-referenced document is searched.

=> SEL CR
E1 THROUGH E1 ASSIGNED

=> $ E1/AN
L3 1 2001-059644/AN

=> D CR FAM
Guide to STN Patent Databases

Sometimes the CR field is not filled. It is therefore a good idea to do an extended family search (see below).

36.5 Search in IFIALL

=> FIL IFIALL
FILE 'IFIALL' ENTERED
COPYRIGHT (C) 2016 IFI CLAIMS(R) Patent Services (IFI)

=> S US 6300146/PN
L1 1 US 6300146 /PN
   (US6300146/PN)

With regard to family information the FI and RLI fields are of particular interest.

=> D STD

L1 ANSWER 1 OF 1 IFIALL COPYRIGHT 2016 IFI on STN
AN 03586128 IFIALL
TI HYBRID PACKAGE INCLUDING A POWER MOSFET DIE AND A CONTROL AND PROTECTION CIRCUIT DIE WITH A SMALLER SENSE MOSFET
IN Thierry Vincent (FR)
PA International Rectifier Corp (42928)
PI US 6300146 B1 20011009 (CITED IN 004 LATER PATENTS)
AI US 2000-549280 20000414 [9]
RLI US 1999-344704 19990625 DIVISION 6137165
FI US 6300146 20011009
US 6137165
DT Utility; Certificate of Correction
CDAT 27 May 2003
ED 6 May 2003
FS CHEMICAL
GRANTED
ED Entered STN: 11 Oct 2001
ED Last Updated on STN: 8 Jul 2002
INCL INCLM: 438014000
INCLS: 438003000; 438005000; 438015000; 438017000; 438018000
NCL NCLM: 438014000
NCLS: 438003000; 438005000; 438015000; 438017000; 438018000
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IPC G01R0031-26
H01L0021-66
IPCR H01L0023-34 [i]; H03K0017-08 [N]; H03K0017-08 [N]; H03K0017-082 [i]; H03K0017-082 [i]

36.6 Search in USPATFULL

=> FIL USPATFULL
FILE 'USPATFULL' ENTERED
CA INDEXING COPYRIGHT (C) 2016 AMERICAN CHEMICAL SOCIETY (ACS)

=> S US 6300146/PN
The RLI field holds detailed information on the patent family.

=> D

L2 ANSWER 1 OF 1 USPATFULL on STN
AN 2001:173407 USPATFULL
TI Hybrid package including a power MOSFET die and a control and protection circuit die with a smaller sense MOSFET
IN Thierry, Vincent, Aix en Provence, France
PA International Rectifier Corp., El Segundo, CA, United States (U.S. corporation)
PI US 6300146          B1  20011009                             <
AI US 2000-549280        20000414 (9)
DT Utility
FS GRANTED
LN.CNT 356
INCL INCLM: 438/014.000; 438/015.000; 438/017.000; 438/018.000; 438/005.000; 438/003.000
NCL NCLM: 438/014.000; 438/005.000; 438/015.000; 438/017.000; 438/018.000
CPC CPCI H01L0024-49 [1]; H01L0024-45; H01L2224-45124; H01L2224-45144;
H01L2224-48091; H01L2224-48137; H01L2224-48247; H01L2224-48472;
IPC [7]
IPCI G01R0031-26 [ICM,7]; H01L0021-66 [ICS,7]
IPCR H01L0023-34 [1]; H03K0017-08 [N]; H03K0017-082 [1]
EXF 438/14; 438/15; 438/17; 438/18; 438/5; 438/13

36.7 Extended family search in DWPI

=> FIL WPINDEX
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2016 THOMSON REUTERS

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SEA US6300146/PN
L3  1 US6300146/PN

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SEA L4
L5  2 L4

*** ITERATION 2 ***
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Guide to STN Patent Databases

FSORT L5
L6   2 FSO L5

1 Multi-record Family  Answers 1-2
0 Individual Records
0 Non-patent Records

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FDT US 6300146 B1 Div ex US 63137165 A
PRAI US 2000-549280 20000414
US 1999-344704 19990625

L6 ANSWER 2 OF 2 WPINDEX COPYRIGHT 2016 THOMSON REUTERS on STN FAMILY1
AN 2001-059644 [200107] WPINDEX
CR 2002-235722
PI US 63137165 A 20001024 (200107)* EN 8[6]
DE 10031115 A1 20001025 (200107) DE
JP 2001015655 A 20001119 (200107) JA 32
PRAI US 1999-344704 19990625

36.8 Non-conventional patent families examples

36.8.1 WPINDEX

36.8.1.1 Example 1

Non-conventional equivalents filed outside the one year priority period

- Non-conventional equivalents (#) in WO, EP, JP, US were filed more than one year after the DE priority application.

AN 1997-333666 [199731] WPINDEX
PA (MERE-C) MERCK PATENT GMBH
PI DE 19547346 A1 19970626 (199731)* DE 4[0]
WO 9834114 A1 19980806 (199837) # DE
EP 963554 A1 19991215 (200003) # DE
JP 2001015655 T 20010724 (200147) # JA 10
EP 963554 B1 20021023 (200277) # DE
US 6479302 B1 20021112 (200282) # EN

The non-conventional applications have their application numbers posted to the priority field.

PRAI DE 1995-19547346 19951219
WO 1997-EP403 19970130
36.8.1.2 Example 2

Non-conventional equivalents in countries that have not signed the Paris Convention

- Taiwan has not signed the Paris Convention, but recognises priority claims from contracting members.

36.8.1.3 Example 3

Linking national applications without priority relationship into patent families

- The Canadian publication is the basic of the DWPI record
- The patent assignee from India filed in Brazil and the US on the same day, but without claiming a priority
- In DWPI, the BR and US publications were linked to the CA publication via intellectual effort.

36.8.1.4 Example 4

Linking national applications and PCT applications without priority relationship into patent families

- The US application was filed by a foreign applicant without priority information
- The link to the WO basic was established via intellectual effort
36.8.2 CAplus

36.8.2.1 Example 1

The US application for an invention from India was filed without priority information

- The US application was filed without priority details on 30 April 2013
- The IN application for the same invention was filed 5 months earlier, in 7 November 2012
- It was found that the inventors, patent assignee and title were identical
- The T0 kind code in the PRAI field indicates the non-conventional equivalent

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<td>Thangaraju, Shyam; Sadasivam, Siva Sakthivel</td>
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<td>PA</td>
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36.8.2.2 Example 2

Numerous applications filed more than one year after the priority application

- The applications in CA, CN, KR, BR, SG, and NZ were all filed more than one year after the French priority application
- Use the FBIB display format to see the T0 kind codes

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### 36.8.2.3 Example 3

The Chinese application published without Taiwan priority

- Remember: Taiwan has not signed the Paris Convention
- Redearch revealed the earlier Taiwan application
- Tip: For Chinese and Taiwan patents, check the PDF files of both to obtain complete assignee information
- Check also for alternate spellings of inventor names

| AN  | 2015:755039 | HCAPlus |
| DN  | 162:643350  |         |
| TI  | Wheel roll type simulation grinding and optical laser plating printing method and printed product thereof |
| IN  | Lin, Yan-Shu |
| PA  | Bai Sha Technology Corp., Taiwan |

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<td>20131025</td>
</tr>
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</table>

### 36.8.3 INPADOC

#### 36.8.3.1 Example 1

Family based on technical priorities

- The applicant filed two applications at the USPTO and CIPO on the same day, without claiming a priority
- The EPO assigned both application numbers to all family members as technical priorities

**AN** 10957058 INPAFAMDB UPFB 20090723 UWF 201335
**TI** USE OF ADRAFINIL TO TREAT BEHAVIORAL PROBLEMS IN AGED CANINES.
**PAS** VETOQUINOL SA, FR

**PATENT FAMILY INFORMATION INPAFAMDB**

<table>
<thead>
<tr>
<th>+++++++ Publications +++++++</th>
<th>+++++++ Applications +++++++</th>
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<tr>
<td>CA 2280309 A1 20010213</td>
<td>CA 1999-2280309 A 19990813</td>
</tr>
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<td>CA 2280309 C 20070508</td>
<td>US 1999-374736 A 19990813</td>
</tr>
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<td>US 6180678 B1 20010130</td>
<td>CA 1999-2280309 A 19990813</td>
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<tr>
<td>CA 1999-2280309 A 19990813</td>
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<tr>
<td>US 1999-374736 A 19990813</td>
</tr>
</tbody>
</table>

**AN** 13481746 INPADOCDB UW 201335
**PI** CA 2280309 A1 20010213 English
**AI** CA 1999-2280309 A 19990813
**AIT** CAA Patent application
**PRAI** CA 1999-2280309 A 19990813 (CAA, 20070621, Y)
**US 1999-374736 A 19990813 (USAT, 20070621, Y)
**PRAIT** CAA Patent application
**USAT TECHNICAL PRIORITY**

**AN** 48536908 INPADOCDB UW 201335
**PI** US 6180678 B1 20010130 English
**AI** US 1999-374736 A 19990813
**AIT** USA Patent application
**PRAI** US 1999-374736 A 19990813 (USA, 20070621, Y)
**CA 1999-2280309 A 19990813 (CAAT, 20070621, Y)
**PRAIT** USA Patent application
**CAAT TECHNICAL PRIORITY**
36.8.3.2 Example 2

Extensive family building for pre-1968 publications

- The priority application in Germany was followed by two applications in France and the UK, neither claiming any priority
- The EPO manually assigned the DE technical priority to the FR and GB publications to compile the family

Guide to STN Patent Databases

36.8.3.3 Example 3

Chinese dual applications

- FIZ Karlsruhe joins Chinese dual applications (where both a patent and a utility model application were filed for the same subject on the same day without giving any priority information) into non-conventional patent families
37  Legal status search example

37.1  Example 1
We are interested in the current legal status of various members of the patent family of the US patent numbered 6,479,876.

Note: The patent databases with legal status information allow searching by publication or application number. Appropriate DISPLAY formats for the legal status are available.

The details available vary between the databases.

37.1.1  Search in INPADOCDB

=> FIL INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe

SEARCH with the patent or application number. The legal status can be displayed e.g. by D MAX or D ALL LS or D LS (legal status field only).

=> S US6479876/PN
L1  1 US6479876/PN

If there is a patent family with few members it is more effective to use a family display format with legal status information for all members (if the full information is needed). LFAM or FFAM are possible. The IFAM format would have even more details (Indented Family Format)

=> D FFAM

L1  ANSWER 1 OF 1 INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN

-------------

MEMBER 1
-------------

AN  21397282 INPADOCDB UP 20100701 UW 201028
FN  11575639
TI  Vertical power MOSFET.
Vertikaler Leistungs-MOSFET.
TL  English; German
IN  TIHANYI, JENOE, DR.-ING., 85551 KIRCHHEIM, DE; DEBOY, GERALD, DR. REI NAT., 82008 UNTERHACHING, DE
INS TIHANYI JENOE DR  ING, DE; DEBOY GERALD DR RER NAT, DE
PA  SIEMENS AG, 80333 MUENCHEN, DE
PAS SIEMENS AG, DE
DT  Patent
PI  DE 19970730759 C1 19980903
PIT  DEC1 PATENT SPECIFICATION (FIRST PUBL.) [FROM NO. 1400000 ONWARDS]
FDT  DEC1 Grant of a patent without 'OFFENLEGUNGSSCHRIFT'
DAV  19980903 printed with grant
STA  GRANTED
AI  DE 1997-19730759 A 19970717
AIF DEA Patent application
PRAI DE 1997-19730759 A 19970717 (DEA, 20080814, Y)
PRAIT DEA Patent application
XPD  20170717
REC  1. THERE IS 1 CITED REFERENCE (1 PATENT, 0 NON PATENT) AVAILABLE FOR THIS RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.
IC  V 6
ICM H01L0029-78
IPCR H01L0021-336 [I, A]; H01L0029-06 [I, A]; H01L0029-167 [I, A];
H01L0029-32 [I, A]; H01L0029-76 [I, A]; H01L0029-78 [I, A];
H01L0031-062 [I, A]
CPC H01L0029-0634; H01L0029-167; H01L0029-32; H01L0029-7802
EPC H01L0029-7882; H01L0029-068283R2; H01L0029-167; H01L0029-32
Guide to STN Patent Databases

FA AB; AI; AN; DAV; CGP; CPC; DT; EPC; ICM; IN; INS; IPC; IPCR; PA; PAS; PI; PIT; PRAI; REP; TI; XPD

LEGAL STATUS
AN 21397282 INPADOCDB
19980903 DE1 + GRANT (NO UNEXAMINED APPLICATION PUBLISHED) PATENT LAW 81
19980903 DE8100 + PUBLICATION OF THE EXAMINED APPLICATION WITHOUT
PUBLICATION OF UNEXAMINED APPLICATION
19990304 DE8364 + NO OPPOSITION DURING TERM OF OPPOSITION

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MEMBER 2
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AN 23621185 INPADOCDB UP 20100701 UW 201028
FN 11575639
TI VERTIKALER LEISTUNGSMOSFET.
VERTICAL POWER MOSFET.
TRANSISTOR A EFFET DE CHAMP MOS VERTICAL DE PUISSANCE.
TL German; English; French
IN DEBOY, GERALD; TIHANYI, JENOE
INS DEBOY GERALD, DE; TIHANYI JENOE, DE
PA SIEMENS AKTIENGESELLSCHAFT
PAS SIEMENS AG, DE
DT Patent
PI EP 929910 A1 19990721 German
PIT EPAK APPLICATION PUBLISHED WITH SEARCH REPORT
DAV 19990721 examined-printed-without-grant
STA PRE-GRANT PUBLICATION
DS R. DE FR GB IE IT
AI EP 1998-947303 A 19980717
AIT EPA Patent application
PRAI WO 1998-DE2020 W 19980717 (WOWW, 20080814, N)
DE 1997-19730759 A 19970717 (DEA, 20080814, Y)
PRAI WOWW Additional PCT application
PRAIT WOWW Additional PCT application
REC 1. THERE IS 1 CITED REFERENCE (0 PATENT, 1 NON PATENT) AVAILABLE FOR THIS
RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.
I.C.V 6
ICM H01L0029-78
ICS H01L0029-167; H01L0029-32
ICR H01L0029-336 [I,A]; H01L0029-66 [I,A]; H01L0029-167 [I,A];
H01L0029-32 [I,A]; H01L0029-76 [I,A]; H01L0029-78 [I,A];
H01L0031-062 [I,A];
CPC H01L0029-063; H01L0029-167; H01L0029-32; H01L0029-7802
EPC H01L0029-7882; H01L0029-068283R2; H01L0029-167; H01L0029-32
FA AI; AN; DAV; CPC; DS; DT; EPC; ICM; ICS; IN; INS; IPC; IPCR; LA; PA; PAS;
PI; PIT; PRAI; REN; TI

LEGAL STATUS
AN 23621185 INPADOCDB
19990721 EPAK + DESIGNATED CONTRACTING STATES:
EP EP
DE FR GB IE IT
19990721 EP17P + REQUEST FOR EXAMINATION FILED
EXA Examination, Search Report
19990305
20011114 EPRAP1 TRANSFER OF RIGHTS OF AN EP APPLICATION
INFINEON TECHNOLOGIES AG
CHG Change of Owner, Inventor, Applicant
20070815 EP17Q + FIRST EXAMINATION REPORT
20070717
EXA Examination, Search Report
20070816
20080528 EP18D - DEEMED TO BE WITHDRAWN
20071128
NIF Lapses, Expiries, Withdrawals, Refusals
20080528

---------
Guide to STN Patent Databases

CHG Change of Owner, Inventor, Applicant

20120522 JPFPAY + RENEWAL FEE PAYMENT
PAYMENT UNTIL: 20130425

-------------------------------
MEMBER 4
-------------------------------

AN 48835776 INPADOCDB UP 20100701 UW 201028
FN 11575639
TI Vertical power MOSFET.
TL English
IN DEBOY GERALD; TIHANYI JENOE
INS DEBOY GERALD, DE; TIHANYI JENOE, DE
PA DEBOY GERALD; TIHANYI JENOE
DT Patent
PI US 6479876 B1 20021112
PIT US91 REEXAM. CERTIF., N-N REEXAM. or GRANTED PATENT AS FIRST PUBLICATION
[FROM 2001 ONWARDS]
DAV 20021112 printed-with-grant
STA GRANTED
AI US 2000-462759 A 20001012
AIT USA Patent application
PRAI DE 1997-19730759 A 19970717 (DEA, 20080814, Y)
WO 1998-DE20 W 19980717 (WOWW, 20080814, N)
PRAIT DEA Patent application
WOWW Additional PCT application
XPD 20180717
REC 7. THERE ARE 7 CITED REFERENCES (7 PATENT, 0 NON PATENT) AVAILABLE FOR THIS RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.
IC.V 7
ICM H01L0029-76
ICS H01L0031-062
IPCR H01L0021-336 [I,A]; H01L0029-06 [I,A]; H01L0029-167 [I,A]; H01L0029-32 [I,A]; H01L0029-76 [I,A]; H01L0029-78 [I,A]; H01L0031-062 [I,A]
CPC H01L0029-0634; H01L0029-167; H01L0029-32; H01L0029-7802
EPC H01L0029-7832; H01L0029-0682B3R2; H01L0029-167; H01L0029-32
NCL NCLM 257/401.000
NCLS 257/E29.086; 257/E29.107; 257/E29.257; 257/341.000; 257/392.000; 257/500.000
I NCL I NCLM 257/401.000
I NCLS 257/341.000; 257/392.000; 257/500.000
FA AB; AI; AN; DAV; CGP; CPC; DT; EPC; EMC; IN; INS; IPC; IPCR; INCL; NCL; PA; PI; PIT; PRAT; REP; TI; XPD

LEGAL STATUS
AN 48835776 INPADOCDB
20001012 USAS ASSIGNMENT
SIEMENS AKTIENGESELLSCHAFT, GERMANY
ASSIGNMENT OF ASSIGNS INTEREST; ASSIGNS: DEBOY, GERALD; TIHANYI, JENOE; REEL/FRAME: 011165/0961
19991230
CHG Change of Owner, Inventor, Applicant

20020715 USAS ASSIGNMENT
INFINEON TECHNOLOGIES AG, GERMANY
ASSIGNMENT OF ASSIGNS INTEREST; ASSIGNOR: AKTIENGESELLSHAFT, SIEMENS; REEL/FRAME: 013085/0518
20020701
CHG Change of Owner, Inventor, Applicant

20030603 USCC CERTIFICATE OF CORRECTION

20060505 USFPAY + FEE PAYMENT

20100507 USFPAY + FEE PAYMENT

300
VERTICAL POWER MOSFET.

TRANSISTOR A EFFET DE CHAMP MOS VERTICAL DE PUISSANCE.

German; English; French

Patent

Patent

WO 9904437 A1 19990128

WO030000 Before expiration of time limit for amending the claims and to be republished in the event of the receipt of the amendments

DAV 19990128 examined-printed-without-grant

STA PRE-GRA NT PUBLICATION

DS W: JP US

RG (EPO): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE

AI WO 1998-DE2020 W 19980717 German

AIT WOW International application Number

PRAI DE 1997-19730759 A 19970717 (DEA, 20080814, Y)
PRAIT DEA Patent application

REC 4. THERE ARE 4 CITED REFERENCES (4 PATENT, 0 NON PATENT) AVAILABLE FOR THIS RECORD. ALL CITATIONS ARE AVAILABLE IN THE RE FORMAT.

IC.V 6

ICS H01L0029-78

IPC H01L0029-167; H01L0029-32

IPCR H01L0021-336 [I,A]; H01L0029-06 [I,A]; H01L0029-167 [I,A]; H01L0029-32 [I,A]; H01L0029-76 [I,A]; H01L0029-78 [I,A]; H01L0031-062 [I,A]

CPC H01L0029-0634; H01L0029-167; H01L0029-32; H01L0029-7802

EPC H01L0029-7882; H01L0029-068283R2; H01L0029-167; H01L0029-32

FA AB; ADBE; ABFR; AI; AN; DAV; CGP; CPC; DS; DT; EPC; ICM; ICS; IN; INS; IPC; IPCR; LAF; PA; PAS; PI; PIT; PRAI; REP; TI

LEGAL STATUS

19990128 WA 19990128 WA

WO A1

WO A1

EP 1999847303

EP 1999847303

EP 1999847303

WO 1999847303

WO 1999847303

WO 1999847303

WO 1999847303

WO 1999847303

WO 1999847303

WO 1999847303

WO 1999847303

WO 1999847303
**37.1.2 Search in EPFULL**

=> **FILE EPFULL**  
FILE 'EPFULL' ENTERED  
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe / LexisNexis Univentio B.V.

=> **S EP929910/PN**  
L3 1 EP929910/PN

The legal status from the European Patent Register is displayed with D LSEP. This legal status is searchable. The INPADOCDB legal status can be displayed in EPFULL and in other full-text databases.

=> **D LSEP**  
L3 ANSWER 1 OF 1 EPFULL COPYRIGHT 2013 EPO/FIZ KA/LNU on STN

LEGAL STATUS INCLUDING HISTORY  
AN 1998:60472 EPFULL  
19990506 WO8006EP The EPO has been informed by WIPO that EP was designated in this application  
19990506 WO8870 PCT publication data  
19990506 EP8840 Designated contracting states  
19990506 WO8880 PCT, Publication of the international search report (A3 publication)  
19990721 EPB241 Request for examination  
19990721 EPB430 Unexamined document without grant, (first publication)  
19990721 EPB840 Designated contracting states  
20011114 EPB710R Applicant reassignment  
20011114 SIEMENS AKTIENGESELLSCHAFT, Wittelsbacherplatz 2, 80333 Muenchen, DE  
20011114 Infineon Technologies AG, (Technologies AG, Infineon), St.-Martin-Strasse 53, 81669 Muenchen, DE  
20011219 EPB740R Agent reassignment  
20011219 Patentanwaelte Westphal, Mussgnug & Partner, Mozartstrasse 8, 80336 Muenchen, DE  
2002070815 EPB242 Dispatch of the first examination report  
2002070717  
20070816  
20071205 EPB740R Agent reassignment  
20071205 Patentanwaelte Westphal, Mussgnug & Partner, Herzog-Wilhelm-Str. 26, 80331 Muenchen, DE  
20080528 EPB237 Application deemed withdrawn  
20071128  
20080528

**37.2 Example 2**

Has a US patent for the application published as US 2002/0106495 already been granted?

**Notes:** This search can most easily be accomplished in INPADOCDB, but rather than the legal status the STA field should be used where the status of the publication is registered. Another way is to search by the publications kind codes for granted patents. Note that these codes may vary between databases.

The search by publication kind code should be done in INPADOCDB or in another national or regional patent database where all publications are displayed in a single document (for US: USPATFULL, IFIPAT). DWPI or HCAPLUS should not
be used with this strategy because in these databases it is possible that the number of the granted patent is entered into a different document of the patent family.

From Jan. 2, 2001, the relevant US publication kind codes are USB1 or USB2 in USPATFULL/IFIALL and in INPADOCDB.

### 37.2.1 Search in INPADOCDB, USPATFULL and IFIALL

```plaintext
=> FIL INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe

Search in INPADOCDB with GRANTED/STA.

=> E A/STA
**** START OF FIELD ****
E3 0 --> A/STA
E4 35279038 GRANTED/STA
E5 40740032 PRE-GRANT PUBLICATION/STA
**** END OF FIELD ****

=> S US 2002106495/PN AND GRANTED/STA
L1 1 US 2002106495/PN AND GRANTED/STA

=> D PI.M
L5 ANSWER 1 OF 1 INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN
P1 US 20110268954 A1 20111103
P1 US 8359823 B2 20130129

Multi file search by publication kind codes.

=> FIL INPADOCDB USPATFULL IFIALL
FILE 'USPATFULL' ENTERED
COPYRIGHT (C) 2013 American Chemical Society (ACS)
FILE 'IFIALL' ENTERED
COPYRIGHT (C) 2013 IFI CLAIMS(R) Patent Services (IFI)

All potential codes can be covered with truncation. Other codes are not relevant together with this publication number of the US application.

=> SET MSTEPS ON; SET DETAIL OFF

=> S US 20110268954/PN AND USB!/PK
L6 1 FILE INPADOCDB
L7 1 FILE USPATFULL
L8 1 FILE IFIALL

TOTAL FOR ALL FILES
L9 3 US 20110268954/PN AND USB!/PK

In this multi file search the FROM option is used because of the different display formats in the individual databases.

=> D 1- PI FROM USPATFULL IFIALL
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N): Y
L9 ANSWER 2 OF 3 USPATFULL on STN
P1 US 20110268954 A1 20111103
US 8359823 B2 20130129

L9 ANSWER 3 OF 3 IFIALL COPYRIGHT 2013 IFI on STN
P1 US 8359823 B2 20130129
US 20110268954 A1 20111103
WO 2010079034 20100715

=> D 1- PI.M FROM INPADOCDB
YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N): Y
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37.3 Example 3

We are looking for oppositions against patents of GlaxoSmithKline and oppositions filed by GlaxoSmithKline in 2011.

Notes: INPADOCDB or EPFULL can be used to search for oppositions. Some patent offices even publish the opponent, e.g. the European Patent Office. The second part of the question can only be answered for publications of these offices.

37.3.1 Search in INPADOCDB (1)

Searching oppositions against patents of GlaxoSmithKline.

=> FIL INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2012 European Patent Office / FIZ Karlsruhe

The legal status code ORE is used. This code is set with all Oppositions or Reexaminations (except where the text says: 'NO OPPOSITION')
(L) proximity is used to get only documents where the same legal status entry contains both 'opposition' and '2011'.

=> S (GLAXO? OR SMITHKLINE?)/PA, PAS AND ORE/LSC2 (L)2011/LSD
34812 GLAXO?/PA
35099 GLAXO?/PAS
36336 SMITHKLINE?/PA
36911 SMITHKLINE?/PAS
201997 ORE/LSC2
367128 2011/LSD (20110000-20119999/LSD)
9851 ORE/LSC2 (L)2011/LSD
L1 21 (GLAXO? OR SMITHKLINE?) /PA, PAS AND ORE/LSC2 (L)2011/LSD

=> D BIB HIT 5

L2 ANSWER 5 OF 21 INPADOCDB COPYRIGHT 2012 EPO/FIZ KA on STN
AN 52737667 INPADOCDB ED 20101216 EW 201050 UP 20101216 UW 201050
FN 8201841
TI IMPFSTOFFZUSAMMENSETZUNGEN MIT VIRUSOMEN UND EINEM SAPONIN-ADJUVANS.
VACCINE COMPOSITIONS COMPRISING VIRUSOMES AND A SAPONIN ADJUVANT.
COMPOSITIONS DE VACCIN COMPRENANT DES VIROSOMES ET UN ADJUVANT A BASE DE SAPONINE.
TL German; English; French
IN COLLER, BETH-ANN; HENDERICKX, VERONIQUE; GARCON, NATHALIE M.J.
INS COLLER BETH-ANN, BE; HENDERICKX VERONIQUE, BE; GARCON NATHALIE M J, BE
PA GLAXOSMITHTKLINE BIOLOGICALS SA
PAS GLAXOSMITHTKLINE BIOLOG SA, BE
DT Patent
PI EP 1755666 B1 20101215 English
PT EPB1 PATENT SPECIFICATION
DAV 20101215 printed-with-grant
STA GRANTED
DS R: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR
XS R: HR LV
AI EP 2005-747432 A 20050526
AIT EPA Patent application
PRAI WO 2005-EP5786 W 20050526 (Woww, 20070301, N)
GB 2004-12039 A 20040528 (GBA, 20070301, Y)
GB 2004-12304 A 20040602 (GBA, 20070301, Y)
PRAIT WOWW Additional PCT application
GBA Patent application
PA GLAXOSMITHTKLINE BIOLOGICALS SA
PAS GLAXOSMITHTKLINE BIOLOG SA, BE
Search examples

PA GLAXOSMITHKLINE BIOLOGICALS SA
PAS GLAXOSMITHKLINE BIOLOG SA, BE

LEGAL STATUS HIT
AN 52737667 INPADOCDB
2011019EP26 OPPOSITION FILED
CRUCELL HOLLAND B.V.
20110915
ORE Opposition, Reexamination

LEGAL STATUS HIT
AN 52737667 INPADOCDB
2011026EP26 OPPOSITION FILED
STRAWMAN LIMITED
20110915
ORE Opposition, Reexamination

With European patents also the Opponent is named.
We now want to get a list of Opponents.

=> ANALY L1 1- LSOP
L3 ANALYZE L1 1- LSOP : 17 TERMS

=> D 1-
L3 ANALYZE L1 1- LSOP : 17 TERMS

TERM #  # OCC  # DOC  % DOC LSOP
---------- ---------- ---------- ---------- ----------
1       5      2   9.52 NORTON HEALTHCARE LIMITED
2       4      1   4.76 TEVA PHARMACEUTICAL INDUSTRIES LTD.
3       3      2   9.52 NOVARTIS VACCINES AND DIAGNOSTICS, INC.
4       3      1   4.76 GEDEON RICHTER PLC.
5       3      1   4.76 MICROMET AG
6       2      1   4.76 CHIRON CORPORATION
7       2      1   4.76 FRIESLAND BRANDS B.V.
8       1      1   4.76 BAYER PHARMA AKTIENGESELLSCHAFT
9       1      1   4.76 BOCK WOLFGANG
10      1      1   4.76 CRUCELL HOLLAND B.V.
11      1      1   4.76 NOVARTIS AG
12      1      1   4.76 SANOFI PASTEUR, INC.
13      1      1   4.76 SCHERING AKTIENGESELLSCHAFT
14      1      1   4.76 STRAWMAN LIMITED
15      1      1   4.76 TASMANIAN ALKALOIDS PTY. LTD.
16      1      1   4.76 THE KINGDOM OF THE NETHERLANDS, REPRESENTED BY THE
17      1      1   4.76 VON MENGES, ALBRECHT

******** END OF L3 ********

37.3.2 Search in INPADOCDB (2)

Search for oppositions (against European Patents) by
GlaxoSmithKline. The LSOP field (Legal Status Patent Opponent)
is used.

=> S (GLAXO? OR SMITHKLINE?)/LSOP (L)2011/LSD
116 GLAXO?/LSOP
70 SMITHKLINE?/LSOP
3671278 2011/LSD
(20110000-20119999/LSD)

L4 15 (GLAXO? OR SMITHKLINE?)/LSOP (L)2011/LSD

=> D PA HIT
L4 ANSWER 1 OF 15 INPADOCDB COPYRIGHT 2012 EPO/FIZ KA on STN
PA EXONHIT THERAPEUTICS SA

LEGAL STATUS HIT
AN 57172616 INPADOCDB
20110615EP26 OPPOSITION FILED
GLAXO GROUP LIMITED
Now GLAXO is the Opponent. This is a list of patent assignees against whose patents GLAXO has opposed.

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<td>MAX PLANCK GESELLSCHAFT</td>
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<td>1</td>
<td>1</td>
<td>6.67</td>
<td>PROTEIN DESIGN LABS INC</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>1</td>
<td>6.67</td>
<td>WANG LI HONG</td>
</tr>
</tbody>
</table>

Search of European patents where the company BIOSENSOR ENTREPRISES is licensee.

Selecting those patent assignees where BIOSENSOR ENTREPRISES appears as licensee.
Search examples

Biosensor Enterprises, LLC, 925 Page Mill Road, Palo Alto, California 94304, US
8700
for AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE
38 Monitoring search example

38.1 INPADOCDB

38.1.1 Example 1

Patent publications for the ‘manufacturers of inline skates’ example shall be monitored using a profile of three IPC codes and six companies. The search shall be limited to the countries DE, EP and WO and first publications. (Since there are no problems with these countries with the EDP update field this can be used effectively to monitor first publications.) We want publications from May 19, 2007. This example can use either automatic (SDI) or manual monitoring. The latter is shown here:

38.1.1.1 Creating a command file for STN Express

```c
/* SDI INLINE SKATES, INPADOCDB */
FIL INPADOCDB

/* IPC */
/* Using the thesaurus to search for the IPC code */
/* and all its sub-codes. */
S A63C0017-04+NT/IPC > _IPC

/* COMPANY NAMES */
S (NORDICA )/PA,PAS > _NAME1
S (BENETTON (S) SPORT?)/PA,PAS > _NAME2
S (DEKA(S)PROD?)/PA,PAS > _NAME3
S (SALOMON)/PA,PAS > _NAME4
S (MGM (S)(SPA))/PA,PAS > _NAME5
S (SKIS (S) ROSSIGNOL)/PA,PAS > _NAME6
S _NAME1-_NAME6 > _NAME

/* INTERMEDIATE RESULT */
S _IPC OR _NAME > _RESULT1

/* LINKING OF THE 1ST INTERMEDIATE RESULT WITH THE DESIRED PUBLICATION COUNTRIES */
S _RESULT1 AND (DE OR EP OR WO)/PC > _RESULT2

/* LINKING OF THE 2ND INTERMEDIATE RESULT WITH UPDATE FIELD ‘EDP’ */
/* (FIRST ENTRY) */
S _RESULT2 AND EDP>=20150101 > _RESULT3

/* DISPLAY OF DOCUMENTS */
D 1-ALL
```

38.1.2 Search

Display the search history.

=> D HIS

FILE 'INPADOCDB'
L1  6319 S A63C0017-04+NT/IPC
L2  1898 S (NORDICA )/PA,PAS
L3  164 S (BENETTON (S) SPORT?)/PA,PAS
L4  1970 S (DEKA(S)PROD?)/PA,PAS
L5  9490 S (SALOMON)/PA,PAS
L6  65 S (MGM (S)(SPA))/PA,PAS
L7  1595 S (SKIS (S) ROSSIGNOL)/PA,PAS
L8  15148 S L2:L7
L9  20898 S L1 OR L8
L10  5758 S L9 AND (DE OR EP OR WO)/PC
L11  183 S L10 AND EDP>=20150101

38.1.2 Example 2

To set up a monitoring search in INPADOCDB with this specification:

308
- IPC codes:
  - A47J 27/21 to 27/56, 31/06 to 31/44, 37/12 (range search)
  - B01D complete
  - B01J 39/00 to 49/00 (range search or)
  - C02F complete
  - G01N 27/06 to 27/30, 27/403 to 27/416 (range search)
- Patent assignee:
  - Amway Corp.
  - The Clorox Company
  - Culligan International Company
  - Procter & Gamble
- Countries:
  - DE, EP, WO
- Publication kinds:
  - First publications
- Further requirements:
  - Not all documents are going to be displayed, but a selection based on titles shall be made.

### 38.1.2.1 Notes on the search strategy

EDP is chosen as the update field – yielding the first publication in the national publication sequence.

During a manual search the titles can be displayed first to select a number of documents and the selected documents can be displayed later (if this selection is not going to be done immediately during the on-line session the answer set should be saved with the command SAVE NAME/A).

To follow this procedure with an automatic monitoring (SDI) search ‘online’ delivery must be selected when the SDI is set up.

In STNext, automatic monitoring can also be set up menu-driven.

In any SDI search by classification it must be considered that on the one hand the codes may have been revised and on the other hand documents with the new codes (IPC, CPC) may come with a delay. Before setting up an SDI search profile it is therefore necessary to check whether the codes to be used have been revised. If codes have actually been revised both the new codes and the old codes before revision must be included in the search. After some time (approx. 2 years, to be checked) the old codes may be removed.

### 38.1.2.2 Search

1. Retrospective search:

   ```
   => D HIS

   FILE 'INPADOCDB' ENTERED
   L1  88285 S (A47J 0027-21-A47J 0027-56 OR A47J 0031-06-A47J 0031-44 OR A47J 0037-12) OR IPC
   L2  1184572 S (B01D) OR IPC
   L3  42398 S (B01J 0039-00-B01J 0049-00) OR IPC
   L4  568981 S (C02F) OR IPC
   L5  144432 S (G01N 0027-06-G01N 0027-30 OR G01N 0027-403-G01N 0027-416) OR IPC
   L6  1863136 S L1-L5
   L7  510 S (AMWAY) OR PA,PAS
   L8  2472 S (CLOROX OR CLORUX) OR PA,PAS
   L9  493 S (CULLIGANT) OR PA,PAS
   L10 515 S (CUNO INCT) OR PA,PAS
   L11 122735 S (PROCTER OR PROKTER OR PROCTOR) OR PA,PAS
   ```
2. Setting up the SDI:

=> SDI

ENTER QUERY L# FOR SDI REQUEST OR (END): L15

ENTER UPDATE FIELD CODE (UP), UPAA, UPFA, UPM, UPFL, UPCC, EDLS, UPBB, UPFE, EDPR, ED, EDP, EDF, UPFD, UPFC, EDLS, UPLS OR ?: EDP

ENTER SDI REQUEST NAME, (AA046/S), OR END: DEEPWO/S

ENTER COST CENTER (NONE) OR NONE: NONE

ENTER TITLE (NONE): EXAMPLE1

ENTER METHOD OF DELIVERY (EMAIL), ONLINE OR RSS: ONLINE

ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN? Y/(N): Y

HIGHLIGHT HIT TERMS? (Y)/N: Y

ENTER SDI RUN FREQUENCY - (WEEKLY), MONTHLY, OR ?: WEEKLY

ENTER SDI EXPIRATION DATE 'YYYYMMDD' OR (NONE): 20160819

QUERY L15 HAS BEEN SAVED AS SDI REQUEST 'DEEPWO/S'

3. Checking the SDI:

=> D SAVED/S

NAME             CREATED      NOTES/TITLE
-------------- -------------------------
DEEPWO/S         24 AUG 2016  SDI REQUEST FOR FILE INPADOCDB

=> ACTIVATE DEEPWO35/A

=> D 1-10 TITLE IPC M

=> LOG Y

5. Evaluation of the titles

6. Activating the answer set and displaying the selected documents:

=> ACTIVATE DEEPWO35/A

=> TITLE: BEISPIEL1

L1 QUE ABB=ON (A47J0027-21-A47J0027-56 OR A47J0031-06-A47J0031-12)/IPC
L2 QUE ABB=ON (B01D)/IPC
L3 QUE ABB=ON (B01J0039-00-B01J0049-00)/IPC
L4 QUE ABB=ON (C02F)/IPC
L5 QUE ABB=ON (G01N0027-06-G01N0027-30 OR G01N0027-403-G01N0027-416)/IPC
L6 QUE ABB=ON (L1 OR L2 OR L3 OR L4 OR L5)
L7 QUE ABB=ON (AMWAY)/PA,PAS
L8 QUE ABB=ON (CLOROX OR CLORUX)/PA,PAS
L9 QUE ABB=ON (CULLIGAN?)/PA,PAS
L10 QUE ABB=ON (CUNO INC?)/PA,PAS
L11 QUE ABB=ON (PROCTER OR PROKTER OR PROCTOR)/PA,PAS
L12 QUE ABB=ON (GAM### OR CABLE OR CAMBLE OR GABLE OR GEHMEL)/PA,PAS
L13 QUE ABB=ON (L1 (S) L12
L14 QUE ABB=ON (L7 OR L8 OR L9 OR L10 OR L13
L15 QUE ABB=ON (DE OR EP OR WO)/PC AND (L6 OR L14)
L16 176 SEA FILE INPADOCDB ABB=ON L15 AND 20160819-20160825/EDP

=> D L16 1 5 14 27 ... ALL
38.1.2.3 Difficult cases

a) The above example to include any of the countries GB, IL, NO, or SE:

In these countries there are A0 publications (publication of the fact that a patent application was filed, no document published).

In this case the update field /ED (rather than /EDP) should be used. As in this case all subsequent publications appear in the monitoring results the question ‘ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN?’ should be answered YES.

b) The above example to include JP as completely as possible:

The applicant and the title are often missing in Japanese publications.

If /EDP (or /EDPR) is used the same applies as above, i.e. all publications in the national publication sequence (and/or the patent family) are lost. /ED should be used.

c) The example above is to include WO publications as completely as possible:

IPC codes are missing in some WO publications.

In this case /UP should be used as update code. When setting up the SDI the question „ELIMINATE PREVIOUSLY SEEN ANSWERS WITH EACH SDI RUN?“ should be answered NO.

38.1.3 Example 3

Here are a few examples to demonstrate the use of special update fields in INPADOCDB.

38.1.3.1 1st Example

The European publication number, EP 1491511, is to be monitored with regard to grant and changes of the legal status. Second the whole patent family is to be monitored.

=> FIL INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2016 European Patent Office / FIZ Karlsruhe

The search is done for the current update week. The update field used is /EDLS.

=> S EP 3049113 /PN AND EDLS>20160817
L1 0 EP 3049113 /PN AND EDLS>20160817

The result is zero. This means no grant was published and there was no legal status change for this application.

Now the /UPFE field is used, i.e., the whole family is monitored for grants or legal status changes.

=> S EP 3049113 /PN AND UPFE>20160817
L2 1 EP 3049113 /PN AND UPFE>20160817

There is one hit.

=> D BROWSE

FFAMED is used to display the result, i.e., only the changes to the patent family are shown. This format only includes the current update week. It can be thus be used only if monitoring weekly (either manually or by SDI command).

We can see that one US publication was added.
Guide to STN Patent Databases

 FN 53637482
 PI WO 2015048484 A3 20150430
 AN B0180173 INPADOCDB ED 20150625 EW 201526 UW 201606
 FN 53637482
 PI WO 2015048484 A4 20150618

LEGAL STATUS CURRENT UPDATE
 AN B0180173 INPADOCDB
 20160325 WOENP ENTRY INTO THE NATIONAL PHASE IN:
 JP 2016517452 A

6 priorities, 7 applications, 9 publications (4 EPO simple families)

This CFAM display would not be strictly necessary. This is just to show the complete patent family.

:CFAM

PATENT FAMILY INFORMATION
 AN 86604211 INPADOCDB

+-------------------+---------------------+
| PI                |                      |
+-------------------+---------------------+
| AU 2014324761     | A1 20160505         |
| CA 2925447        | A1 20150402         |
| EP 3049113        | A2 20160803         |
| US 20150086561    | A1 20150326         |
| US 20150197558    | A1 20150716         |
| US 20150299298    | A1 20151022         |
| WO 2015048484     | A2 20150402         |
| WO 2015048484     | A3 20150430         |
| WO 2015048484     | A4 20150618         |
+-------------------+---------------------+

6 priorities, 7 applications, 9 publications (4 EPO simple families)

:END

This monitoring of the patent family could also be done in INPAFAMDB in exactly the same way.

38.1.3.2 2nd Example

The company, Rohde & Schwarz, is being monitored for grant publications and legal status changes. First the manual monitoring is shown and then an automatic monitoring profile (SDI) is set up.

a) Manual monitoring

=> S (ROHDE (S) SCHWARZ)/PA, PAS AND EDLS>20160817
L3  16 (ROHDE (S) SCHWARZ)/PA, PAS AND EDLS>20160817

When monitoring a company the FSORT command should be used because otherwise several members of the same patent family may be displayed.

=> FSORT L3

SET SMARTSELECT ON
SET COMMAND COMPLETED
SET HIGHLIGHTING OFF
SET COMMAND COMPLETED

SEL L3 1- PN, APPS
L4  SEL L3 1- PN APPS :  57 TERMS

'L4' DELETED
L4  16 FSO L3

1 Multi-record Family Answers 1-2
14 Individual Records Answers 3-16
0 Non-patent Records

312
D FFAMED displays only documents updated during the current update week. With PFAM only one document from each family is displayed.

=> D PFAM 1- FFAMED

L4 ANSWER 1 OF 16 INPADOCDB COPYRIGHT 2016 EPO/FIZ KA on STN FAMILY DUPLICATE 1

-----------------
MEMBER 1
-----------------
AN 86606402 INPADOCDB ED 20160804 EW 201631 UP 20160811 UW 201633
FN 57781797
PL EP 3051304 A1 20160803

LEGAL STATUS CURRENT UPDATE
AN 86606402 INPADOCDB
20160810 EPRI N1 INVENTOR (CORRECTION)
TANKIELUN, ADAM
CHG Change of Owner, Inventor, Applicant

-----------------
MEMBER 2
-----------------
AN 86739961 INPADOCDB ED 20160818 EW 201633 UP 20160818 UW 201633
FN 57781797
TI Measuring device, system and method for wirelessly measuring radiation patterns.
TL English
IN Tankielun Adam
INS TANKIELUN ADAM, DE
PA Rohde & Schwarz GmbH & Co. KG
PAS ROHDE & SCHWARZ, DE
DT Patent
PI US 20160226607 A1 20160804 English
PIT USA FIRST PUBLISHED PATENT APPLICATION [FROM 2001 ONWARDS]
DAV 20160804 unexamined-printed-without-grant
STA PRE-GRANT PUBLICATION
AI US 2015-14609701 A 20150130
AIT USA Patent application
PRAI US 2015-14609701 A 20150130 (USA, 20160804, Y)
PRAIT USA Patent application
IPCI H04B0017-31B [I,A]; H04W0024-10 [I,A]
CPC H04B0017-31B; G01R0029-10; H04W0024-10
FA AB; AI; AN; DAV; CPC; DT; ED; EW; IN; INS; IPC; IPCI; LA; PA; PAS; PI;
PIT; PRAI; TI

LEGAL STATUS CURRENT UPDATE
AN 86739961 INPADOCDB
20150617 USAS ASSIGNMENT
ROHDE & SCHWARZ GMBH & CO. KG, GERMANY
ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: TANKIELUN, ADAM, DR.; REEL/FRAME:035852/0213
20150326
CHG Change of Owner, Inventor, Applicant

With /UPFE there is a higher number of hits.
This search could also be done in INPAFMDB. FSORT would not be necessary there.

=> S (ROHDE (S) SCHWARZ)/PA,PAS AND UPFE>20160817
L5 47 (ROHDE (S) SCHWARZ)/PA,PAS AND UPFE>20160817
FSORT is used again.

=> FSORT L5
L6 47 FSO L5

12 Multi-record Families Answers 1-44
  Family 1 Answers 1-2
  Family 2 Answers 3-5
  Family 3 Answers 6-10
  Family 4 Answers 11-16
  Family 5 Answers 17-19
  Family 6 Answers 20-21
  Family 7 Answers 22-25
  Family 8 Answers 26-27
  Family 9 Answers 28-29
  Family 10 Answers 30-33
  Family 11 Answers 34-40
  Family 12 Answers 41-44

3 Individual Records Answers 45-47
0 Non-patent Records

With this command only one document updated during the last week is displayed from each patent family.

=> D PFAM 1. FFAMED

b) Set-up of an SDI

The FSORT command cannot be used within an SDI profile. To use the above strategy anyway, ‘ONLINE’ is chosen as ‘METHOD OF DELIVERY’ when the SDI profile is set up.

=> QUE (ROHDE (S) SCHWARZ)/PA,PAS
L1 QUE (ROHDE (S) SCHWARZ)/PA,PAS

=> SDI

ENTER QUERY L# FOR SDI REQUEST OR (END): L1
ENTER UPDATE FIELD CODE (UP), UPAA, UPFA, UPM, UPFL, UPCC, EDLS, UPBB, UPFE, EDPR, ED,
  EDP, EDL, UPFD, UPFP, UPFC, UPFB, UPLS OR ?: EDLS
ENTER SDI REQUEST NAME, (AA046/S), OR END: ROHDE1/S
ENTER COST CENTER (NONE) OR NONE: .
ENTER TITLE (NONE): .
ENTER METHOD OF DELIVERY (EMAIL), ONLINE OR RSS: ONLINE
HIGHLIGHT HIT TERMS? Y)/N: .
ENTER SDI RUN FREQUENCY - (WEEKLY), MONTHLY, OR ?: .
ENTER SDI EXPIRATION DATE ‘YYYYMMDD’ OR (NONE): .
QUERY L1 HAS BEEN SAVED AS SDI REQUEST ‘ROHDE1/S’

First result of monitoring:

=> D SAVED

NAME CREATED NOTES/TITLE
----------------- --------- ----------------------------
ROHDE135/A 26 AUG 2016 28 ANSWERS IN FILE INPADOCDB

=> ACTIVATE ROHDE135/A
L1 QUE ABB=ON |ROHDE (S) SCHWARZ)/PA,PAS
L2 28 SEA FILE=INPADOCDB ABB=ON L1 AND 20160819-20160825/EDLS
Now the answer set can be sorted by FSORT.

=> FSORT L2
L3 28 FSO L2

0 Multi-record Families Answers 1-28
28 Individual Records
0 Non-patent Records
Search examples

But there are no multi-record families in this update week.

38.1.3.3 3rd Example

The applications of the company, Bayer Cropscience, shall be monitored for granting:

Setting up the search profile for an automatic SDI.

=> S (BAYER CROPSCIENCE )/PA (L) GRANTED/STA(L) ED/LAST
248724 BAYER/PA
21908 CROPSCIENCE/PA
19764 (BAYER CROPSCIENCE )/PA
((BAYER(S)CROPSCIENCE)/PA)
45812537 GRANTED/STA
5904533 ED/LAST
(20150824-20160824/ED)
L1
736 (BAYER CROPSCIENCE )/PA (L) GRANTED/STA(L) ED/Last

Setting up the search profile for a manual SDI.

=> S (BAYER CROPSCIENCE )/PA (L) GRANTED/STA(L) ED>20160817
248724 BAYER/PA
21908 CROPSCIENCE/PA
19764 (BAYER CROPSCIENCE )/PA
((BAYER(S)CROPSCIENCE)/PA)
45812537 GRANTED/STA
52887 ED>20160817
(ED>20160817)
L2
10 (BAYER CROPSCIENCE )/PA (L) GRANTED/STA(L) ED>20160817

=> D
4th Example

We want to monitor patents/applications if they are still in force/pending. For this search the legal status category NIF (Lapses, Expiries, Withdrawals, Refusals) is used.

First a few national publication numbers to be monitored are entered.

=> S (DE112005002409 OR US6290688 OR GB2007011018 OR DE19843211 OR US7254833 OR FR2884439) / PN AND NIF / LSC2 (L) UPLS > 20070815

The 3 numbers below have the category NIF during the period that was monitored.

=> D 1-3 PI LS

L4 ANSWER 1 OF 3 I NPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PI GB 2007011018 D0 20070718
LEGAL STATUS
AN 53767919 I NPADOCDB
20070718 GBAT - APPLICATIONS TERMINATED BEFORE PUBLICATION UNDER SECTION 16 (1)
NIF Lapses, Expiries, Withdrawals, Refusals
200733.................................20070816

L4 ANSWER 2 OF 3 I NPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PI DE 112005002409 A5 20070712
LEGAL STATUS
AN 53475805 I NPADOCDB
20070816 DE8130 - WITHDRAWAL
NIF Lapses, Expiries, Withdrawals, Refusals
200733.................................20070816

L4 ANSWER 3 OF 3 I NPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PI US 6290688 B1 20010918
LEGAL STATUS
AN 46846654 I NPADOCDB
20030211 USRR + REQUEST FOR REEXAMINATION FILED 20021220
ORE Opposition, Reexamination
20031006 USAS
ASSIGNMENT
ALPHA INDUSTRIES, INC. 20 SYLVAN ROAD, WOBURN, MASSA
RELEASE AND RECONVEYANCE/SECURITY INTEREST
ASSIGNOR: CONEXANT SYSTEMS, INC.; REEL/FRAME:014580/0880 20030307

20031006 USAS
CHG Change of Owner, Inventor, Applicant
ASSIGNMENT
ALPHA INDUSTRIES, INC. 20 SYLVAN ROAD, WOBURN, MASSA
It is necessary to display the documents because it may be that there are documents where both NIF and REI occur at the same time. A Reinstatement/Restoration is even possible at a later time.

It is even possible that an NIF code is published first and later an extension of the period of protection is published by a SPC code.

Extra checks are thus necessary.

We want to monitor EP publications of the company, Alcatel. The NIF category is set either for the EP publication altogether or for each individual country. If NIF appears this does not automatically mean that the EP patent has expired in all designated countries.

=> S ALCATEL/PA,PAS AND EP/PC AND NIF/LSC2(L)UPLS>20070815
L1  38 ALCATEL/PA,PAS AND EP/PC AND NIF/LSC2(L)UPLS>20070815
=> D 1-5 HIT
L1  ANSWER 1 OF 38  INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PA  ALCATEL
PAS  CIT ALCATEL, FR
PI  EP 1728700  A1 20061206
PA  ALCATEL LUCENT
PAS  CIT ALCATEL, FR
In this example either the EP-patent lapsed altogether (EP18, DEEMED TO WITHDRAWN) or it lapsed in NL (EPNLV1, NL: LAPPED OR ANNULED DUE TO FAILURE…). There are more codes for the lapse of an EP patent as a whole or in individual countries.

We are now going to monitor WO publications of the company Siemens during a longer period of time. With WO publications, the NIF category is set either for the WO publication as a whole or for individual countries. If NIF appears...
this does not automatically mean that the WO application is not pending any more in any designated country. With WO applications one should look for NON ENTRY into the national phase.

=> S SIEMENS/PA, PAS AND WO/PC AND NIF/LSC2(L)UPLS>20060815
L14 441 SIEMENS/PA, PAS AND WO/PC AND NIF/LSC2(L)UPLS>20060815

=> D 1-5 HIT

L14 ANSWER 1 OF 441 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PA SIEMENS AKTIENGESELLSCHAFT OESTERREICH; INGRUBER, OTTO; KANZIAN, CHRISTIAN; SCHMOELLER, FRANZ
PAS SIEMENS AG OESTERREICH, AT; INGRUBER OTTO, AT; KANZIAN CHRISTIAN, AT; SCHMOELLER FRANZ, DE
PI WO 2006094972 A1 20060914

LEGAL STATUS HIT
AN 15613027 INPADOCDB
20070208 WOWA - WITHDRAWAL OF INTERNATIONAL APPLICATION
NIF Lapses, Expiries, Withdrawals, Refusals 200708.........................20070222

L14 ANSWER 2 OF 441 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PA SIEMENS CORPORATE RESEARCH, INC.; GRADY, LEO
PAS SIEMENS CORP RES INC, US; GRADY LEO, US
PI WO 2006036789 A2 20060406
PA SIEMENS MEDICAL SOLUTIONS USA, INC.; GRADY, LEO
PAS SIEMENS MEDICAL SOLUTIONS, US; GRADY LEO, US
PI WO 2006036789 A3 20060810

LEGAL STATUS HIT
AN 15554964 INPADOCDB
20070726 WOREG - REFERENCE TO NATIONAL CODE
DE8642 - DE: IMPACT ABOLISHED FOR DE - I.E. PCT APPL. NOT ENT. GERMAN PHASE
NIF Lapses, Expiries, Withdrawals, Refusals 200730.........................20070726

L14 ANSWER 3 OF 441 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PA SIEMENS AKTIENGESELLSCHAFT; LEDERER, THOMAS
PAS SIEMENS AG, DE; LEDERER THOMAS, DE
PI WO 2005125172 A1 20051229

LEGAL STATUS HIT
AN 15518057 INPADOCDB
20060608 WOWA - WITHDRAWAL OF INTERNATIONAL APPLICATION
NIF Lapses, Expiries, Withdrawals, Refusals

L14 ANSWER 4 OF 441 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PA SIEMENS AKTIENGESELLSCHAFT; HENSE, CHRISTOPH
PAS SIEMENS AG, DE; HENSE CHRISTOPH, DE
PI WO 2005117397 A1 20051208

LEGAL STATUS HIT
AN 15510283 INPADOCDB
20060323 WOWA - WITHDRAWAL OF INTERNATIONAL APPLICATION
NIF Lapses, Expiries, Withdrawals, Refusals

L14 ANSWER 5 OF 441 INPADOCDB COPYRIGHT 2007 EPO/FIZ KA on STN
PA SIEMENS AKTIENGESELLSCHAFT; CHRISTMANN, MARK; GULDEN, PETER; VOSSIEK, MARTIN; WEBKING, LEIF
PAS SIEMENS AG, DE; CHRISTMANN MARK, DE; GULDEN PETER, DE; VOSSIEK MARTIN, DE; WEBKING LEIF, DE
PI WO 2005088333 A2 20050922

LEGAL STATUS HIT
AN 15481224 INPADOCDB
20060302 WOWA - WITHDRAWAL OF INTERNATIONAL APPLICATION
NIF Lapses, Expiries, Withdrawals, Refusals
The NIF category may be used to monitor for the lapse of a patent or an application. Anyway, one should always consider that a later event might revert this ‘lapse’ (REI, SPC). For EP or WO applications the NIF code does not always mean that all Designated States are concerned.

### 38.2 Chemical Abstracts

New publications are often entered into the Chemical Abstracts (CAPlus, HCAPlus, ZCAPlus) without Indexing information in the first place. The indexing information is added at a later time and can be searched separately. For that the right Update field must be used.

```plaintext
=> F I L HCAPL
FILE 'HCAPLUS'
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
COPYRIGHT (C) 2016 AMERICAN CHEMICAL SOCIETY (ACS)
```

A short search by keywords.

```plaintext
=> S OPTICAL (2A) (FIBER# OR FIBRE#)
L1 115166 OPTICAL (2A) (FIBER# OR FIBRE#)
```

The result is limited to documents from the last 6 weeks.

```plaintext
=> S L1 AND ED>20160817 AND P/DT
L2 73 L1 AND ED>20160817 AND P/DT
```

The newest patent is displayed. There is no Index terms (IT) field available!

```plaintext
=> D ALL
```

**AB**

There is provided an optical reflectometric method and system for characterizing an optical fiber link, wherein events in the fiber optic link under test are identified and values of parameters characterizing the events (e.g. location, insertion loss and reflectance) are extracted from an analysis of one or more reflectometric measurements performed on the optical fiber link. A loss profile and/or a reflectance profile are then constructed. The loss and reflectance profiles are typically displayed on screen or otherwise graphically represented for an operator to be able to appreciate the measurement results at a single glance.

Search with the update code UPI.

The UPI field is updated when the Indexing information is added.

```plaintext
=> S L1 AND UPI>20160817 AND P/DT
L3 79 L1 AND UPI>20160817 AND P/DT
```

This is the newest patent with Indexing information.

```plaintext
=> D ALL
```
Method for characterizing a sample by measuring a backscattered optical signal

In Roig, Blandine; Koenig, Anne; Dinten, Jean-Marc; Perraut, Francois

Ti The invention relates to a process for determining an optical property of a sample (50), comprising:
(a) illumination of a surface of the sample using a beam of light to form, on the surface of the sample, an elementary zone

Absorptivity
Animalia
Animals
Anisotropic diffusion
Diffusion
Homo sapiens
Human
Illumination
Light
Light scattering
Mathematical methods
Optical anisotropy
Optical fibers
Optical properties
Optical reflection
Skin
Skin epidermis
Surface

AB The invention relates to a process for determining an optical property of a sample (50), comprising:
(a) illumination of a surface of the sample using a beam of light to form, on the surface of the sample, an elementary zone.
If one wants to search for the descriptor OPTICAL FIBERS the appropriate field must be used.

=> S OPTICAL FIBERS/CT AND UPI>20160817 AND P/DT
L4 61 OPTICAL FIBERS/CT AND UPI>20160817 AND P/DT

=> D L4 TI IT
L4 ANSWER 1 OF 61 HCAPLUS COPYRIGHT 2016 ACS on STN
TI Method for characterizing a sample by measuring a backscattered optical signal
IT Absorptivity
Animalia
Animals
Anisotropic diffusion
Diffusion
Homo sapiens
Human
Illumination
Light
Light scattering
Mathematical methods
Optical anisotropy
Optical fibers
Optical properties
Optical reflection
Skin
Skin epidermis
Surface
{method for characterizing sample by measuring backscattered optical signals}
IT Backscattering
{optical; method for characterizing sample by measuring backscattered optical signals}
39 Multi-file search example

These search examples demonstrate some strategies to perform online searches in multiple files.

39.1 Subject search – Example 1

After a search in the Chemical Abstracts database we would like to retrieve the corresponding documents from the World Patents Index, which will provide additional information. To group the documents by patent families FSORT and DPFAM are used. How to use the Patent Family Manager of STN Express is demonstrated, too.

39.1.1 Search in Chemical Abstracts PLUS and DWPI

```plaintext
=> FIL HCAPLUS
FILE 'HCAPLUS' ENTERED
COPYRIGHT (C) 2013 AMERICAN CHEMICAL SOCIETY (ACS)

=> $ FURNITURE(L)(POLISH? OR BRIGHTEN?) AND P/DT
L1 464 FURNITURE(L)(POLISH? OR BRIGHTEN?) AND P/DT
Switch to DWPI and HCAPLUS. The order of the file names governs the order in which the family members are going to be arranged by the FSORT command later on.
Using TRANSFER, the patent, application, and priority numbers from the records are searched in both databases.

=> FIL WPINDEX HCAPLUS
FILE 'WPINDEX' ENTERED
COPYRIGHT (C) 2013 THOMSON REUTERS
FILE 'HCAPLUS' ENTERED
COPYRIGHT (C) 2013 AMERICAN CHEMICAL SOCIETY (ACS)

=> TRANSFER L1 1- PN APPS
L2 TRANSFER L1 1- PN APPS : 1556 TERMS
L3 786 L2

=> FSORT L3
SET SMARTSELECT ON
SET COMMAND COMPLETED

SET HIGHLIGHTING OFF
SET COMMAND COMPLETED

SEL L3 1- PN APPS
L4 SEL L3 1- PN APPS : 2145 TERMS

'L4' DELETED
L4 786 FS0 L3

As a result, the sorted patent families are displayed.
Sometimes more than one record from each database is present in a family.

263 Multi-record Families Answers 1-589
Family 1 Answers 1-2
Family 2 Answers 3-4
Family 3 Answers 5-6
Family 4 Answers 7-8
Family 5 Answers 9-10
Family 6 Answers 11-12
Family 7 Answers 13-14
Family 8 Answers 15-16
...
Family 263 Answers 588-589

Some documents have no equivalents. The main reasons for this are the different country and time coverage.

197 Individual Records Answers 590-786
```
Guide to STN Patent Databases

0 Non-patent Records

SET SMARTSELECT OFF
SET COMMAND COMPLETED

SET HIGHLIGHTING DEF
SET COMMAND COMPLETED

Using D PFAM=1–2 only one documents of the first two families is displayed.

=> D PFAM=1–2 TI PA FAM

L4 ANSWER 1 OF 786 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
FAMILY 1
TI Whole bamboo plywood useful in bottom plate of container, doors and windows, furniture, automobile, and ship berth, comprises a phenolic laminated paper, a bamboo mat long plate, a bamboo curtain short plate, and a bamboo curtain long plate
PA (DEQI-N) DEQING DESEN WOOD IND CO LTD
PI CN 202517539 U 20121107 (201320)* ZH 7[2] <-
ADT CN 202517539 U CN 2011-20436809U 20111104
PRAI CN 2011-20436809U 20111104

L4 ANSWER 3 OF 786 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
FAMILY 2
TI Agent used for polishing furniture, comprises specified amount of silicon carbide oil, hard wax, oleic acid, triethanolamine, gasoline, dimethyl silicone polymer, coconut oil diethanolamide, and water
PA (HAIA-N) HAIAN GUOLI HAIAN GUOLI CHEM IND CO LTD
PI CN 102702980 A 20121003 (201317)* ZH 3[0] <-
ADT CN 102702980 A CN 2012-10203424 20120620
PRAI CN 2012-10203424 20120620

D PFAM is now used to display all 2 records of family 8.

=> D PFAM=8 1–2 TI PA FAM

L4 ANSWER 15 OF 786 WPINDEX COPYRIGHT 2013 THOMSON REUTERS on STN
FAMILY 8
TI Amino plastic used for decorating e.g. furniture, comprises raw material having melamine formaldehyde resin, urea resin, and mixture of plant straw fiber, cotton scrap fiber, fruit husk powder, bone meal and starch, and inorganic material
PA (CHEN-I) CHEN T
PI CN 102558761 A 20120711 (201268)* ZH 4[0] <-
ADT CN 102558761 A CN 2010-10624211 20101231
PRAI CN 2010-10624211 20101231

L4 ANSWER 16 OF 786 HCAPLUS COPYRIGHT 2013 ACS on STN FAMILY 8
TI Environmental friendly amino plastic and its production method
PA Peop. Rep. China
AN 2012:1019583 HCAPLUS
DN 157:230764
FAN. CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
-------------------- -------- --------------- ----------------------
PI CN 102558761 A 20120711 CN 2010-10624211 20101231 <-
CN 2010-10624211 20101231

These are documents that have no equivalent.

=> D L4 590 TI PA FAM

L4 ANSWER 590 OF 786 HCAPLUS COPYRIGHT 2013 ACS on STN
TI Furniture brightener containing styrene and manufacture method thereof
PA Peop. Rep. China
AN 2013:218763 HCAPLUS
DN 158:333755
FAN. CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE
-------------------- -------- --------------- ----------------------
PI CN 102911607 A 20130206 CN 2011-10221285 20110802 <-
To compare: DUPLICATE does not find all equivalents that were identified by FSORT!

=> DUP REM L3
L5  551 DUP REM L3 (235 DUPLICATES REMOVED)

39.1.2 How to use the Patent Family Manager of STN Express

To find the duplicates and display the documents from the multi-file search above the Patent Family Manager (in STN Express and STNNext) is an efficient tool:

Left-click on L3 in the search above; start the Patent Family Manager.

Two options are offered. We choose „Extract the first member...“.

=> FIL WPINDEX, HCAPLUS

=> DIS SET REN

SET PARAMETER CURRENT PERMANENT LOGIN DEFAULT

RENUMER "OFF" "OFF" "OFF" "OFF"

FSORT is run automatically.

=> FSORT L3

SET SMARTSELECT ON
SET COMMAND COMPLETED

SET HIGHLIGHTING OFF
SET COMMAND COMPLETED

SEL L3 1- PN, APPS
L6  SEL L3 1- PN APPS :  2145 TERMS

' L6' DELETED
L6  786 FS0 L3
Then SORT is run automatically. A new answer set is created from the first answer numbers of each patent family and from the single documents (in several steps).

Then SORT is run automatically. A new answer set is created from the first answer numbers of each patent family and from the single documents (in several steps).

The new answer set does not contain any duplicates.

**39.2 Subject search – Example 2**

We want to perform a text search in the full-text files, PATDPAFULL, EPFULL, and PCTFULL. To group the retrieved documents by patent family FSORT will be used. The patent numbers will in addition be searched in INPADOCDB, as this file has the priority numbers standardised and continuously updated and allows a comprehensive retrieval of patent families.

Example: Lichtbögen in Bordnetzen (Electric arcs in on-board supply systems) (vehicles, aircrafts, electric vehicles, etc.).

**39.2.1 Search in PATDPAFULL, EPFULL und PCTFULL**

```bash
=> FIL PATDPAFULL EPFULL PCTFULL
FILE 'PATDPAFULL' ENTERED
COPYRIGHT (C) 2013 DPMA
FILE 'EPFULL' ENTERED
```
Search examples

After SET MSTEPS ON a search generates L-numbers for each file.

(S) proximity is used to link both aspects of this search (arcs and on-board systems).

Some of the documents are grouped by FSORT.
Guide to STN Patent Databases

To find all equivalents INPADOCDB is involved.

=> FIL INPADOCDB
FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe

=> TRANSFER L4 1- PN
L6 TRANSFER L4 1- PN : 163 TERMS
L7 163 L6

SET DUPORDER FILE causes the number of duplicates per file to be displayed when DUPLICATE is invoked.

=> SET DUPORDER FILE
SET COMMAND COMPLETED

=> DUPLICATE IDENTIFY L5 L7
FILE 'PATDPAFULL' ENTERED
COPYRIGHT (C) 2013 DPMA

FILE 'EPFULL' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe / LexisNexis Univentio B.V.

FILE 'PCTFULL' ENTERED
COPYRIGHT (C) 2013 LexisNexis Univentio B.V.

FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe
L8 325 DUPLICATE IDENTIFY L5 L7 (INCLUDES 124 SETS OF DUPLICATES)

ANSWERS '1-108' FROM FILE PATDPAFULL
ANSWERS '109-136' FROM FILE EPFULL
ANSWERS '137-162' FROM FILE PCTFULL
ANSWERS '163-325' FROM FILE INPADOCDB

FSORT identifies 117 patent families, compared to 113 without INPADOCDB before. D PFAM 1- would only display 117 documents.

=> FSORT L8
L9 325 FSO L8

117 Multi-record Families  Answers 1-325
Family 1  Answers 1-12
Family 2  Answers 3-4
Family 3  Answers 5-6
Family 4  Answers 7-8
Family 5  Answers 9-10
... Family 28  Answers 69-72
... Family 117  Answers 324-325
0 Individual Records
0 Non-patent Records
0 Non-patent Records
This is an example where the standardised priority numbers in INPADOCDB helped to identify an equivalent (priority numbers are not standardised in PCTFULL).

39.2.2 How to use the Patent Family Manager of STN Express

Rather than FSORT the Patent Family Manager (in STN Express or STNext) is now used to sort L8. The second option is shown: „Customize display of patent family results“. The first document of a patent family is displayed with BIB AB, all further documents with TI only. Since the database opened first was PATDPAFULL, most documents displayed with BIB AB come from this database.

Note: If this option is used, the display of the documents cannot be interrupted. Even the display of the expected display price (after SET NOTICE DISPLAY), which would allow to stop, is switched off.
Guide to STN Patent Databases

=> FIL PATDPAFULL, EPFULL, PCTFULL, INPADOCDB
FILE 'PATDPAFULL' ENTERED
COPYRIGHT (C) 2013 DPMA

FILE 'EPFULL' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe / LexisNexis Univentio B.V.

FILE 'PCTFULL' ENTERED
COPYRIGHT (C) 2013 LexisNexis Univentio B.V.

FILE 'INPADOCDB' ENTERED
COPYRIGHT (C) 2013 European Patent Office / FIZ Karlsruhe

=> FSORT L8
SEL L8 1. PN, APPS
L10         SEL L8 1. PN APPS :     349 TERMS
 'L10' DELETED
L10         325 FSO L8

117 Multi-record Families  Answers 1-325
 Family 1                          Answers 1-2
 Family 2                          Answers 3-4
 Family 3                          Answers 5-6
 . . .
 Family 117  Answers 324-325
0 Individual Records
0 Non-patent Records

=> DIS L10 PFAM=1 1 BIB, AB
L10         ANSWER 1 OF 325 PATDPAFULL  COPYRIGHT 2013 DPMA on STN DUPLICATE 1
AN          DE102012201123 PATDPAFULL ED 20130321 EW 2013112
TI          Gewinkelte Hochvolt-Stecker
IN          Saller, Robert, 84546, Egglkofen, DE;
            Wimmer, Christian, 84175, Schalkham, DE;
            Wimmer, Stefan, 84098, Hohenthann, DE
PA          Lisa Draexlmaier GmbH, 84137, Vilsbiburg, DE
AG          HOFFMANN - HEIT, 81925, Muenchen, DE
DT          Patent
PIT         DEB3 Patentschrift als 1. Publikation (ohne vorherige Offenlegungsschrift)
            DEB3 Patent (first publication)
PITX        DEB3-070 PATENTSCHRIFT, (UEBERROLLTE OS) NEUES RECHT
PI          DE 102012201123
AI          DE 2012-102012201123 A 20120126
PRAI        DE 2012-102012201123 A 20120126 *
AB          Gewinkelte Hochvolt-Stecker (1) zur Verwendung im Bordnetz von

330
Search examples

Kraftfahrzeugen mit einem Aussenleiter (3.1, 3.2) und einem Innenleiter (5.1, 5.2) die in einem elektrisch isolierenden, einstueckigen Gehaeuse ...

=> DIS L10 PFAM=1 2-TOT TI
L10 ANSWER 2 OF 325 INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN FAMILY DUPLICATE 1
TI Gewinkelter Hochvoltstecker.

=> DIS L10 PFAM=2 1 BIB, AB
L10 ANSWER 3 OF 325 PATDPAFULL COPYRIGHT 2013 DPMA on STN DUPLICATE 2
AN DE102011079547 PATDPAFULL ED 20130124 EW 201304
TI Vorrichtung und Verfahren zum Ansteuern eines Relais in einem Fahrzeug
IN Fussl, Peter, 84137, Vilshofen, DE
PA Lisa Draxlmaier GmbH, 84137, Vilshofen, DE
AG HOFFMANN-ETILE, 81925, Muenchen, DE
DT Patent
PTX DEA1 Document laid open (first publication)
PI A1 DE 201021079547 A1 20130124
AI DE 2011-102011079547 A 20110721
PRAI DE 2011-102011079547 A 20110721 *
AB Die vorliegende Erfindung betrifft eine Vorrichtung (10) und ein Verfahren zum Ansteuern eines Relais eines Fahrzeugs mit einer Spule (21) und einem Anker (22), die eine Haltespannung bzw. einen Haltestrom ...

=> DIS L10 PFAM=2 2-TOT TI
L10 ANSWER 4 OF 325 INPADOCDB COPYRIGHT 2013 EPO/FIZ KA on STN FAMILY DUPLICATE 2
TI Vorrichtung und Verfahren zum Ansteuern eines Relais in einem Fahrzeug.

39.3 Search by name (Using the EXPAND command)

This example is to show how to use EXPAND in a multi-file search.

STNINDEX can be used to check for name entries.

=> INDEX WPIND HCAPL
INDEX 'WPINDEX, HCAPLUS' ENTERED
2 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0* with SET DETAIL OFF.

=> SET DETAIL ON
SET COMMAND COMPLETED

=> SET DETAIL ON
SET COMMAND COMPLETED

Using EXPAND we can see the various spellings of the patent assignee name and how often they occur in the selected databases.

=> E BIOLITEC/PA 13
E# FILE FREQUENCY TERM
 .. .... .......... .....
E1 WPINDEX 1 BIOLITE LLC/PA
E2 WPINDEX 1 BIOLITE LTD/PA
E3 28 --> BIOLITEC/PA
E4 HCAPLUS 10 BIOLITEC/PA
E4 HCAPLUS 1 BIOLITEC AG/PA

331
Guide to STN Patent Databases

The correct entries are chosen.
The details of the search are shown for each of the databases.

A SEARCH in STNIndex creates a QUERY.

To actually execute the search the files with hits are opened using the FILE command.
The QUERY created above is used for searching.
File 'HCAPLUS' entered at
Copyright (C) 2013 American Chemical Society (ACS)

=> S L1
L2  28 L4

39.4 Search by name (Using proximity)

This example is to show how proximity operators can be used in a search for a name in multiple files. Due to the varying name indexes in the databases one cannot always rely on the right proximity operators to be chosen by the STN system.

All databases containing patents are opened for STNIndex.

==> INDEX PATENTS
FILE 'ENCOMPPAT' ACCESS NOT AUTHORIZED
FILE 'TULSA' ACCESS NOT AUTHORIZED
INDEX 'AEROSPACE, AUPATFULL, CANPATFULL, CPLUS, CASREACT, CNFULL, CROPU, DGENE, DPCI, ENCOMPPAT2, EFPFULL, FRANCEPAT, FRFULL, FSTA, GBFULL, IFIALL, IFICLS, IMSPATENTS, INFULL, INPADOCDB, INPAFAMDB, JAP, JPFULL, KOREAPAT, LITALERT, NTIS, PATDD, PATDPA, ...

ENTERED
45 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view search error messages that display as 0* with SET DETAIL OFF.

==> SET DETAIL ON
SET COMMAND COMPLETED

The essential parts of the name (with the required truncation) are searched using (S) proximity.

Detailed display for each of the databases.

==> S (COLGATE (S) PALMOLIVE)/PA
FILE 'AEROSPACE'
252 COLGATE/PA
250 PALMOLIVE/PA
249 (COLGATE (S) PALMOLIVE)/PA

FILE 'AUPATFULL'
2314 COLGATE/PA
2312 PALMOLIVE/PA
2309 (COLGATE (S) PALMOLIVE)/PA

FILE 'CANPATFULL'
2624 COLGATE/PA
2608 PALMOLIVE/PA
2606 (COLGATE (S) PALMOLIVE)/PA

FILE 'CPLUS'
3616 COLGATE/PA
3619 PALMOLIVE/PA
3608 (COLGATE (S) PALMOLIVE)/PA

FILE 'CASREACT'
6 COLGATE/PA
6 PALMOLIVE/PA
6 (COLGATE (S) PALMOLIVE)/PA

FILE 'CNFULL'
686 COLGATE/PA
682 PALMOLIVE/PA
680 (COLGATE (S) PALMOLIVE)/PA

FILE 'CROPU'
9 COLGATE/PA
9 PALMOLIVE/PA
Guide to STN Patent Databases

FILE 'DGENE'
  14 COLGATE/PA
  14 PALMOLIVE/PA
  14 (COLGATE (S) PALMOLIVE)/PA

FILE 'DPCI'
  3769 COLGATE/PA
  3736 PALMOLIVE/PA
  3734 (COLGATE (S) PALMOLIVE)/PA

FILE 'ENCOMPPATZ2'
  197 COLGATE/PA
  197 PALMOLIVE/PA
  196 (COLGATE (S) PALMOLIVE)/PA

FILE 'EPFULL'
  1621 COLGATE/PA
  1617 PALMOLIVE/PA
  1617 (COLGATE (S) PALMOLIVE)/PA

FILE 'FRANCEPAT'
  999 COLGATE/PA
  994 PALMOLIVE/PA
  994 (COLGATE (S) PALMOLIVE)/PA

FILE 'FRFULL'
  1100 COLGATE/PA
  1110 PALMOLIVE/PA
  1094 (COLGATE (S) PALMOLIVE)/PA

FILE 'FSTA'
  10 COLGATE/PA
  10 PALMOLIVE/PA
  10 (COLGATE (S) PALMOLIVE)/PA

FILE 'GBFULL'
  1193 COLGATE/PA
  1178 PALMOLIVE/PA
  1174 (COLGATE (S) PALMOLIVE)/PA

FILE 'IFICLASS'
  1561 COLGATE/PA
  1517 PALMOLIVE/PA
  1517 (COLGATE (S) PALMOLIVE)/PA

FILE 'IMSPATENTS'
  0 COLGATE/PA
  0 PALMOLIVE/PA
  0 (COLGATE (S) PALMOLIVE)/PA

FILE 'INFULL'
  582 COLGATE/PA
  574 PALMOLIVE/PA
  568 (COLGATE (S) PALMOLIVE)/PA

FILE 'INPADOCDB'
  34133 COLGATE/PA
  33999 PALMOLIVE/PA
  33909 (COLGATE (S) PALMOLIVE)/PA

FILE 'INPAFANDB'
  5989 COLGATE/PA
  5910 PALMOLIVE/PA
Search examples

FILE 'JAPI'
486 COLGATE/PA
483 PALMOLIVE/PA
483 (COLGATE (S) PALMOLIVE)/PA

FILE 'JPFULL'
157 COLGATE/PA
157 PALMOLIVE/PA
157 (COLGATE (S) PALMOLIVE)/PA

FILE 'KOREAPAT'
31 COLGATE/PA
32 PALMOLIVE/PA
30 (COLGATE (S) PALMOLIVE)/PA

FILE 'LITALERT'
3 COLGATE/PA
3 PALMOLIVE/PA
3 (COLGATE (S) PALMOLIVE)/PA

FILE 'NTIS'
0 COLGATE/PA
0 PALMOLIVE/PA
0 (COLGATE (S) PALMOLIVE)/PA

FILE 'PATDD'
12 COLGATE/PA
11 PALMOLIVE/PA
11 (COLGATE (S) PALMOLIVE)/PA

FILE 'PATDPA'
3189 COLGATE/PA
3180 PALMOLIVE/PA
3180 (COLGATE (S) PALMOLIVE)/PA

FILE 'PATDPAFULL'
898 COLGATE/PA
894 PALMOLIVE/PA
894 (COLGATE (S) PALMOLIVE)/PA

FILE 'PATDPAASC'
'PA' IS NOT A VALID FIELD CODE
0 COLGATE/PA
0 PALMOLIVE/PA
0 (COLGATE (S) PALMOLIVE)/PA

FILE 'PCTFULL'
1246 COLGATE/PA
1232 PALMOLIVE/PA
1231 (COLGATE (S) PALMOLIVE)/PA

FILE 'PCTGEN'
394 COLGATE/PA
394 PALMOLIVE/PA
394 (COLGATE (S) PALMOLIVE)/PA

FILE 'PIRA'
0 COLGATE/PA
0 PALMOLIVE/PA
0 (COLGATE (S) PALMOLIVE)/PA

FILE 'POCKET'
274 COLGATE/PA
272 PALMOLIVE/PA
271 (COLGATE (S) PALMOLIVE)/PA
39.5 Cross-file search with overlapping numbers

Transferring patent numbers between CAPLUS, DWPI and INPADOCDB may sometimes cause trouble, in particular if there are JP, CN, or TW patents in the search result. This is caused by overlapping serial numbers for different types of publications, which makes the respective publication numbers ambiguous. The search result can be greatly enhanced by using the PNK (publication number + publication kind code) field rather than the PN (patent number) field in a cross-file search.
Search examples

Searching the Chinese number CN 1 127 574 results in different patent families being retrieved in CAPLUS and DWPI.

=> FILE HCAPLUS
=> S CN1127574/PN
L1 1 CN1127574/PN

=> D TI PA PN
L1 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2016 ACS on STN
TI Method for producing enantiomerically pure esters
PA BASF A.G., Germany
PI PATENT NO. KIND DATE
--------------- ------- ---------
DE 19706337 A1 19980820
CA 2274247 A1 19980827
WO 9817225 A1 19980827
EP 968302 A1 20000105
JP 2001513628 T 20010904
CN 1127574 C 20031112
US 6234811 B1 20010522

=> FILE WPINDEX
=> S CN1127574/PN
L2 1 CN1127574/PN

=> D TI PA PN
L2 ANSWER 1 OF 1 WPINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
TI Universal power converter e.g. for portable personal computer - uses first voltage stage operated from mains, second voltage stage optimised for battery supply and third voltage stage electrically coupled to portable device power supply.
PA (ASTR-N) AST RES INC
PI WO 9501000 A1 19950105 (199507)* EN 18[2]
AU 9472495 A 19950117 (199521) EN
US 5414610 A 19950509 (199524) EN 7[2]
EP 705495 A4 19961127 (199713) EN
CN 1127574 A 19960724 (199749) ZH
EP 705495 B1 19990825 (199939) EN
DE 69420271 E 19990930 (199946) DE
CN 1037648 C 19980304 (200455) ZH

We now show the different results between using PN and PNK.

=> FILE CAPLUS
=> S (EVOVIN OR DEGUSSA)/PA AND C12N/IPC AND CN/PC
L3 214 (EVOVIN OR DEGUSSA)/PA AND C12N/IPC AND CN/PC

=> FILE WPINDEX

The patent numbers from the CAPLUS result are now transferred to DWPI.

=> TRANSFER L3 1- PN
L4 TRANSFER L3 1- PN : 1642 TERMS
L5 192 L4

=> D L4 1- WITH "CN"
L4 TRA L3 1- PN : 1642 TERMS
TERM # TERMS
275 CN100336901/PN
276 CN100347190/PN
277 CN100351387/PN
278 CN100352926/PN
=> S L5 AND (EVONIK OR DEGUSSA)/PA
L6 178 L5 AND (EVONIK OR DEGUSSA)/PA

=> S L5 NOT L6
L7 14 L5 NOT L6

Our check shows that there are completely different families in
the new search result. Only the patent assignees are displayed.

=> D 1-4 PA
L7 ANSWER 1 OF 14 WPINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
PA (GULA-I) GULAS S; (SPIN-N) SPINWOOD TRADING & CONSULTING LTD; (SPIN-N)
SPINWOOD TRADING & CONSULTING LTD
L7 ANSWER 2 OF 14 WPINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
PA (NAEP-I) NAEPFLIN SCHLEIFTECHNIK AG; (NAPF-I) NAPFLIN H; (NAPF-N) NAPFLIN
SCHLEIFTECHNIK AG
L7 ANSWER 3 OF 14 WPINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
PA (STRA-I) STRASSER J
L7 ANSWER 4 OF 14 WPINDEX COPYRIGHT 2016 THOMSON REUTERS on STN
PA (FANG-I) FANG Z

=> FIL CAPLUS

=> S (EVONIK OR DEGUSSA)/PA AND C12N/IPC AND CN/PC
L8 214 (EVONIK OR DEGUSSA)/PA AND C12N/IPC AND CN/PC

=> FIL WPIND

We use PNK rather than PN.

=> TRA L8 1- PNK
L9 TRA L8 1- PNK : 1818 TERMS
L10 178 L9

=> D L9 1- WITH "CN"
L9 TRA L8 1- PNK : 1818 TERMS

TERM # TERMS
----------------------------------
287 CN100336901 C/PNK
288 CN100347190 C/PNK
289 CN100351387 C/PNK
290 CN100352926 C/PNK
...

=> S L10 AND (EVONIK OR DEGUSSA)/PA
L10 2068 EVONIK/PKA
4922 DEGUSSA/PKA
L11 178 L10 AND (EVONIK OR DEGUSSA)/PA

Now we have the correct patent assignee in all patent families.

=> S L10 NOT L11
L12 0 L10 NOT L11
Surveys
## 40 Country codes and country coverage of CA, INPADOCDB, INPAFAMDB, DWPI

In the patents field it is customary to work with country codes rather than the full names of countries. This code is allocated by the WIPO (the World Intellectual Property Organisation). These codes are shown in the table below, together with details on the coverage of the individual countries in the international databases. For this survey, single years covered were not included and different publication kinds are not distinguished. For more detailed information please refer to:

- [http://www.cas.org/expertise/cascontent/caplus/patcoverage/patyear.html](http://www.cas.org/expertise/cascontent/caplus/patcoverage/patyear.html)

<table>
<thead>
<tr>
<th>Code</th>
<th>Country</th>
<th>Land</th>
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Guide to STN Patent Databases

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With the INPADOCDB database now covering publications starting in 1836 it becomes more likely that serial numbers of applications and publications overlap. In order to avoid ambiguities in overlapping serial numbers the format of patent kind code, PK (see also: “Search by formal data”).

- Utility model numbers have a U appended – except Germany (DEU) and China (CNU) where the current publication number format includes the information that this is a utility model number,
- For technical reasons the EPO introduced dummy patent numbers with an appended D where the publication number is unknown and/or was derived from the application number.

In addition to this, a code is appended to the following numbers:

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41.2 Application numbers

Overlapping numbers exist in the case of application numbers, too, and make it necessary to append a code for the type of application and/or priority to the number.

- Utility model application numbers have a U appended – except Germany (DEU) and China (CNU) where the current application number format includes the information that this is a utility model application,
- For technical reasons (see above), there may be a need to create dummy application or priority numbers. These have one of the following letters appended:
  - D – application numbers,
  - T – priority application numbers,
  - X – application or priority numbers before 1920.

Additional codes:

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42 Asian Publications

Asian publications can be found in the three big patent databases with international coverage:

- CAPLUS by Chemical Abstracts Service (CAS),
- INPANFAMDB by the European Patent Office and FIZ Karlsruhe and
- Derwent World Patents Index by Clarivate.

This is complemented by two national patent databases:

- JAPIO by the Japanese Patent Office and
- KOREAPAT by the Korean Institute of Patent Information (KIPI).

For full-text searches, there are 3 databases for Asian countries:

- JPFULL, from 1964 (is completed backwards bit by bit)
- CNFULL, from 1985
- INFULL

42.1 CAPLUS

- China
  - From 1985
  - Unexamined and examined patent applications and granted utility models
  - Current unexamined applications and granted utility models with new number format
  - Granted utility models from publication year 2006
  - Granted patents from 2004
  - Good timeliness for all Chinese publications
  - Bibliographical details and translation of the original abstract within 2 weeks
  - Full indexing information is entered within 50 days

- India
  - From 1946
  - Unexamined and examined applications, patents
  - Indian patent applications (new law) from 2004
  - Bibliographical details and abstracts are available 2 weeks after publication

- Japan
  - From 1916
  - Unexamined and examined applications, patents, Japanese translations of PCT applications
  - Utility models from publication year 2006
  - Bibliographical details and abstracts are available 2 days after publication
  - Full indexing is entered within 27 days
  - Japanese patent classification (FTERMS), thesaurus of F-TERMS

- Korea
  - From 1994
  - Unexamined and examined applications, patents
Guide to STN Patent Databases

- Utility models from publication year 2006
- Bibliographical details and abstracts are available 2 weeks after publication

- Philippines
  - From 2001
  - Unexamined applications

- Singapore, Taiwan and Hong Kong (from 2000)

42.2 INPAFAMDB

- China
  - Unexamined and examined patent applications, patents, utility model applications and granted utility models
  - Current patent applications, patents and granted utility models with new number format
  - Documents are entered approx. 1-3 months after publication
  - Legal status data from 1985 and entry into national phase of PCT applications
  - English abstracts (human-translated by SIPO) are available for patents and utility models, partly original abstracts
  - Names may appear uncommon (through transliteration), often the standardized name fields INS and PAS can help—mainly relevant for national applications without other family members

- Japan
  - Unexamined and examined applications, patents, Japanese translations of PCT applications of non-Japanese applicants, utility model applications and granted utility models
  - Documents entered from 1944
  - Documents are entered 1-3 months after publication
  - No legal status data, only entry and non-entry into the national phase of PCT applications
  - No abstracts
  - When documents are entered the English title and inventor and applicant names may be missing, the details are added later—mainly relevant for national applications without other family members
  - Names may appear uncommon (through transliteration), often the standardized name fields INS and PAS can help—mainly relevant for national applications without other family members

- Korea
  - Examined and unexamined patent applications from 1978, granted patents from 1984, examined utility model applications and examined utility models from 1978 to 2000
  - Documents are entered 1-3 months after publication
  - No legal status data, only entry and non-entry into the national phase of PCT applications
  - English abstracts
  - Names may appear uncommon (through transliteration), often the standardized name fields INS and PAS can help—mainly relevant for national applications without other family members

- Hong Kong, India, Indonesia, Malaysia, Philippines, Singapore, Taiwan, Vietnam
  - Documents are often entered with extreme delay
  - No current documents from IN, MY and VN
  - Utility models from TW from 2000
Surveys

- Patents from PH from 1975 to 1979 (incomplete)
- Utility models from PH from 1982 to 1995
- No legal status data
- English abstracts are only partly available from TW and SG
- Hong Kong: legal status data from 4/2009

42.3 DWPI

- China
  - From 1985
  - Unexamined patent applications, patents, granted utility models
  - Current unexamined applications and granted utility models with new number format
  - Chinese utility models are entered from June 2007
  - Chemical indexing for patent applications and utility models from January 2008
  - English translations (by humans) of application title and abstract from July 2007
  - English translations (by human) of all claims (from 7/2008) can be displayed in Member level – for Chinese patents (from 1/2007) and utility models (from 6/2007) in the DWPI patent family

- India
  - Unexamined and examined applications, patents
  - Indian patent applications (new law) from 2004
  - Indian examined applications from 2000
  - Bibliographical details and abstracts available 2 weeks after publication

- Japan
  - From 1963
  - Examined applications for chemical patents (CPI) from 1963, all technologies from 1999
  - Unexamined applications in electrical engineering (EPI) from 1982, all technologies from 1996
  - Granted patents from 1996
  - Utility model from publication year 2008
  - Main claims in English from 2006
  - Japanese patent classification (FI-Terms, File Index Codes) and FTERMS (File forming Term) from 1966
  - F-TERM thesaurus for easy identification of relevant F-Terms and search and display of the F-Term hierarchy

- Korea
  - From 1986
  - Unexamined applications, patents
  - Delay: 30 days
  - English machine translations of application title and abstract from January 2008
  - Korean utility models from January 2008
  - English machine translations of all patent claims from January 2008, searchable in publication level

- Singapore: from 1995

- Taiwan
Guide to STN Patent Databases

- Patent applications from 1993
- Patents
- Utility models from 2003 in the DWPI family, including English titles from 2008

- Philippines:
  - Patent applications and patents
  - Utility models from January 2010

- Thailand: Patents from January 2010

- Vietnam: Patent applications and patents from January 2010

- Malaysia: Patents from January 2010

- Hong Kong: Patent applications, patents and short-term patents from January 2011

42.4 Summary: Chinese Patent Documents

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unexamined patent      | BiB    | 1985-     | 1985  | 1985-  | 1985-  |
| applications             |        | 1985      |       | 1985   | 1985   |
| CN-B/C
examined patent      | BiB    | 2004-     | 1985- | 1985-  | 1985-  |
| applications/patents     |        | 1985-     |       | 1985   | 1985   |
| CN-U/Y
utility model        | BiB    | 2006-     | 1985- | 2007-  | 1985-  |
| applications/utility     |        | 1985-     |       | 2007   | 1985   |

Notes:
* – Chemical indexing for CNA and CNY from 2008, English translations (by human) of all claims in publication level for invention patents (from 1/2007) and utility models (from 6/2007)
** – English abstracts (human-translated by SIPO) from 1985

42.4.1 CNFULL

CNFULL contains full texts (machine-translated) from 1985, the titles and abstracts are replaced with human-translated texts after approximately 3 months.

42.4.2 Conclusion

Very extensive and current coverage in the value-added databases and in INPAFAMDB:

- Bibliographical details and abstracts available for patents from 1985
- Utility models are available in the value-added databases from 2006/7
- INPAFAMDB has bibliographical details and abstracts of utility models from 1985
- Translated claims are available in DWPI in publication level from 1/2007
- Good timeliness in CAplus (translated abstracts and full indexing)
- Full-text database CNFULL
42.5  **Summary: Indian Patent Documents**

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Notes:
* – With the new patent act (from 2004) the new codes IN-I1/I2/I3/I4 for unexamined patent applications and IN-P1/P2/P3/P4 for PCT applications, national phase, were introduced. 1/2/3/4 stand for the patent offices Delhi, Kolkata (formerly Calcutta), Mumbai (formerly Bombay), Chennai (formerly Madras).
** – In CAPLUS and INFULL patent applications and granted patents in accordance with the new patent act are available, too, but have the codes INA and INA1.
*** – INPAFAMDB includes Indian patents from 1938, but no patent applications. Current patent publications in accordance with the new patent act are not available.
**** – In DWPI the codes INI1-I4 and INP1-P4 are searchable (INP1/PK). However, for display the publication kind code INA (for patent applications) is used.

42.5.1  INFULL

INFULL contains full texts from 1912. This database also includes current documents in accordance with the new patent act from 2004. Thus, INFULL is the only database that includes all available documents from India. The abstracts are taken from the original documents or from equivalents. If the description or claims from the original publications are not sufficient for high-quality OCR they are taken from equivalents. In these cases the Field Availability (FA) field contains DETD.EQ and CLM.EQ, respectively.

42.5.2  Conclusion

- The INFULL full-text database has the most comprehensive coverage of Indian patent publications from 1912 and with very good timeliness.
- Current documents from India are available from CAPLUS, DWPI and INFULL.
- Older documents before 2004 (old patent act) are available from CAPLUS, INFULL, INPAFAMDB and partly DWPI.
- Human indexing in chemistry in CAplus from 1948 and in DWPI from 2000.
- Value-added data for all fields of technology from 2000.
42.6 Summary: Japanese Patent Documents

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Notes:
* In JAPIO and INPAFAMDB abstracts of national JP applications only are available from 1976, abstracts of foreign applications in Japan exist from 1998.
** The data for DWPI are valid for chemical patents (CPI). Electronic JP-A are covered from 1982, all technologies from 1996; JP-B in all technologies are covered from 1999

42.6.1 JAPIO

JAPIO covers unexamined JP patent applications (Kokai Tokkyo Koho) with their bibliographical details, a figure and a machine-translated title and abstract from 1976. New documents were entered into JAPIO approx. 3-4 months after publication. JAPIO has been closed, last update March 2013.

42.6.2 JPFULL

JPFULL contains full texts (machine-translated) from 1964, the titles and abstracts of unexamined patent applications (JPA) are replaced with human-translated texts after approximately 3 months.

42.6.3 Conclusion

Japan was early considered a relevant market by the database producers:
- Intellectual indexing in chemistry from 1963 in DWPI, from 1916 in CAplus
- Value-added data created for all fields of technology since 1996
- Utility models from 2006/8 with English titles and abstracts
- Machine translation of main claims in DWPI from 2006
- Japanese patent classes in CAplus (F-Terms from 2004) and DWPI (from 1966, FI & F-Terms)
- Good timeliness in CAplus (translated abstracts and full indexing)
- Full-text database JPFULL
### 42.7 Summary: Korean Patent Documents

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Notes:
* – From 2000 KR-B documents are only entered if no KR-A document is available.
** – In WPI, abstracts are only available in the CPI (chemistry) and EPI (electrical engineering) file segments

#### 42.7.1 KOREAPAT

KOREAPAT covers unexamined KR patent applications and examined patents with their bibliographical details, a figure and an English title and abstract since 1979. The titles and abstracts are high quality, being translated by specialists. New documents are entered with a delay of approx. 3 months.

#### 42.7.2 Conclusion

Very current and extensive coverage in the value-added databases:
- Bibliographical details and abstracts from 1979
- Abstracts for chemical and electrical patents from 1986
- Utility models with titles and abstracts from 2006/8
- Machine translation of all claims in DWPI (from 2008)
- Good timeliness in CAplus (translated abstracts and full indexing)
- Many abstracts added to INPADOCDB/INPAFAMDB
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* - Chinese publication numbers and patent numbers on the printed patent specification contain a code for the type of intellectual property (1 = Patent for invention, 2 = Utility model, 3 = Design patent), the STN number format does contain this code.

** - Korean publication numbers and patent numbers on the printed patent specification contain a code for the type of intellectual property (10 = Patent, 20 = Utility model, 30 = Design patent), the STN number format does not contain this code.

*** - In the US databases it is possible to search with or without the appended letter for the type of document. If appended the letter is removed by SEARCH EDIT.

N – Digit, if necessary leading zeros

n – Optional digit; without leading zeros or separators.

X – Letter

YYYY – Year (may be two digits only before 2000)

(Leading zero stemming from Japanese Emperor year may be entered and will be deleted by Messenger if appropriate.)