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## I. EVOLUTION OF PATENT ACTIVITIES

The number of European patent applications kept on growing strongly in 1998. The EPO recorded 113 400 requests for European patent, 13% more than in 1997.

64 800 were made by designating the EPO in an international application, and 48 600 applications were filed directly under the European Patent Convention. As the number of Euro-PCT filings increased substantially more than that of direct European applications, the proportion of PCT reached 57% (it was 54.8% in 1997).

As a consequence of the ongoing increase in the number of PCT international applications, the number of applications entering the European phase also increased markedly to be 33 500 in 1998 (+22%). Including the 48 600 direct applications, the total number of European applications entering the European patent procedure rose by 13% to 82 100 (72 960 in 1997).

This growth in filings is reflected in almost all the technical units of the IPC. The number of European applications in the field of Electronics and electric communication techniques (H03,H04) increased by 21.4% to 7 331 applications. With much fewer applications, the units Mining (E21) (+20.7%) and Textiles and flexible materials (D01-D07) (+20.4%) show the largest increases over the previous year. In most of the other units the growth was above 10%, for example: Shaping II (B24-B30,B32) +19%; Engines and pumps (F01-F04) +18%; Personal and domestic articles (A61-A63, excl. A61K) +18%; Fermentation, sugar, skins (C12-C14) +17%.

Although it remains one of the most important unit in terms of number of applications filed, Organic chemistry (C07,A01N) is the unique unit recording a decline (-1.9%) in 1998.

## II. MATTERS CONCERNING THE GENERATION, REPRODUCTION, DISTRIBUTION AND USE OF PRIMARY AND SECONDARY SOURCES OF PATENT INFORMATION

### II. 1. Printing and Publication of Patent Documents

### II. 1.1 Patent Applications

In 1998, the EPO published 73 320 patent applications broken down according to 31 Technical Units of the International Patent Classification as shown hereafter:

| Title of Unit | Classes | Number |
|---|---|---|
| Agriculture | A01, ex. A01N | 678 |
| Foodstuffs; Tobacco | A21 - A24 | 793 |
| Personal or domestic articles | A41 - A47 | 1,481 |
| Health; Amusement | A61 - A63, | 3,894 |
| Preparation for medical, dental, or toilet purposes | A61K | 2,721 |
| Separating; Mixing | B01 - B09 | 2,276 |
| Shaping I | B21 - B23 | 1,530 |
| Shaping II | B24 - B30, B32 | 2,271 |
| Printing | B41 - B44 | 1,415 |
| Transporting I | B60 - B64 | 3,652 |
| Transporting II | B65 - B68 | 2,522 |
| Inorganic chemistry | C01 - C05, C30 | 1,410 |
| Organic chemistry | C07, A01N | 4,111 |
| Organic macromolecular compounds | C08 | 2,595 |
| Dyes; Fuels; Lubricants; Animal or vegetable oils | C09 - C11 | 1,886 |
| Biochemistry; Microbiology; Sugar; Skins | C12 - C14 | 2,260 |
| Metallurgy | C21 - C23, C25 | 1,103 |
| Textiles or flexible materials | D01 - D07 | 981 |
| Paper | D21, B31 | 515 |
| Building | E01 - E06 | 2,135 |
| Earth drilling; Mining | E21 | 380 |
| Engines or pumps | F01 - F04 | 2,121 |
| Engineering in general | F15 - F17 | 2,354 |
| Lighting; Heating | F21 - F28 | 1,637 |
| Weapons; Blasting | F41, F42, C06 | 277 |
| Instruments I | G01 - G03 | 6,218 |
| Instruments II | G04 - G08 | 4,308 |
| Instruments III | G09 - G12 | 2,019 |
| Nucleonics | G21 | 156 |
| Electric techniques | H01, H02, H05 | 7,094 |
| Electronics; Electric communication | H03, H04 | 6,527 |
| **Total** | | **73,320** |

Since the opening, the EPO published the following number of patent applications (cumulative):

| Year | Cumulative number of published patent applications |
|---|---|
| until end of 1988 | 296,853 |
| until end of 1989 | 348,115 |
| until end of 1990 | 404,449 |
| until end of 1991 | 462,608 |
| until end of 1992 | 525,560 |
| until end of 1993 | 575,920 |
| until end of 1994 | 630,883 |
| until end of 1995 | 688,731 |
| until end of 1996 | 749,760 |
| until end of 1997 | 813,899 |
| until end of 1998 | 887,219 |

## II. 1.2 Granted Patents

In 1998, the EPO granted 36,718 patents. Since the opening, the EPO has granted the following number of patents (cumulative):

| Year | Cumulative number of granted patents |
|---|---|
| until end of 1988 | 102,706 |
| until end of 1989 | 125,264 |
| until end of 1990 | 150,020 |
| until end of 1991 | 176,662 |
| until end of 1992 | 207,071 |
| until end of 1993 | 243,735 |
| until end of 1994 | 285,735 |
| until end of 1995 | 327,344 |
| until end of 1996 | 367,413 |
| until end of 1997 | 407,059 |
| until end of 1998 | 443,777 |

## II. 2. Main Types of Announcements in the Field of Patent Information

European Patent Bulletinweekly, with information about published patent applications and granted patents

Official Journal of the EPOmonthly, with publication of decisions of Boards of Appeal and announcements of general nature

## II. 3. Publication Media

### II. 3.1 CD-ROM Production Contract

In the tender process for the current CD-ROM production contract the Office defined the strategie goal to have more than one producer for its CD-ROM series. The Bundesdruckerei qualified by its offer to be a valid partner for the production of the index discs ESPACE© ACCESS, BULLETIN end LEGAL.

The setup of the necessary capacity end knowledge as well as the transfer of know-how has been successfully finished by August 1998. The above mentioned series are now regularly produced by Bundesdruckerei. This company has now built up the capability to serve the Office as a second CD-ROM producer.

**Conversion of the EPO CD-ROM series to mixed-mode format**

The CD-ROM series ESPACE©-FIRST, BULLETIN, LEGAL ACCESS-A and ACCESS-B have been successfully converted to the mixed-mode format until September 1998. They are since then regularly produced in this format. Any parallel production of these series in the old PATSOFT format will cease at the latest end of 1998.

Specific problems had to be solved in conjunction with the printing of full-text documents. A small group of important users does not use the MIMOSA interface software but systems developed on their own, relying on the presence of facsimile images of the single pages of a document (the PATSOFT format). The Office developed a tool for the conversion of the mixed-mode format back to the facsimile images according to the wishes of those users. This tool can be integrated into their individual systems. Several tests have been made and the improvements defined in various meetings with the users have been realized.

As anticipated EP-A and EP-B will fit again onto one CD-ROM in the mixed-mode format, compared to at least 2 discs per series in PATSOFT format. This will bring considerable benefits to the users with respect to the handling end the cost of the necessary equipment (e.g. jukeboxes).

In December 1998 a final test CD-ROM has been broadly distributed together with the version 3.5 of the MIMOSA user interface software. The parallel production of ESPACE©, EP-A and EP-B in the old and the new format will commence beginning of 1999.

**DVD-ROM**

Several CD-ROM series need more than one disc to hold the data volumes. This is especially the case for ESPACE© ACCESS-A which comprises now 5 discs, the last one being regularly updated. Also ESPACE© WORLD needs due to the increasing amount of PCT applications regularly 3 discs per week end is expected to grow to 4 discs per week before the end of this year.

The Office tested the production chain software as well as the user interface software for its compatibility with the much higher data volumes of the DVD (Digital Versatile Disc), which has a capacity of 7 to 26 conventional CD-ROMs.

These tests have been successful for ESPACE© ACCESS-A, which has now been produced twice on DVD and will be regularly produced in a DVD version from January 1999 onwards. At the end of 1998 a test version on DVD of WORLD has been distributed to the users. Decision on regular production will be taken according to the results of a survey on the market needs.

### Savings in Publication Costs for 1999 end 2000

As a result of contract negotiations with the two print contractors, the EPO received proposals with revised prices for the remaining two years of the contract period. In total the price revision results in savings of about 5% with regard to the existing price structure in 1998. The new price discount system is of substantial benefit for the EPO considering the steady increase of applications to be published during the coming years.

### Paragraph numbering

The EPO will introduce paragraph numbering in its A end B publications early 1999. With this initiative it is the second patent office (after the JPO) which provides its patent documents with a valuable reference tooi for publication on different media, i.e. paper, CD-ROM, INTERNET, commercial online databases.

### Procedure for Publishing Corrections

The Directorate Publications has developed a procedure for the publication of corrected patent documents on the various publication media (paper, CD-ROM, Internet).

After intense discussions in the Office and with other Offices as well as users of patent information products, a proposal for a corresponding amendment of WIPO ST.50 was formulated. This amended standard has been approved by the WIPO Executive Committee in summer 1998.

The Office will publish corrections on all media in parallel in the first half of 1999 after the internal databases have been adopted. In the meantime, corrected patent documents are available on the Internet as PDF files.

### The EPO homepage

In the past year, the information published on the EPO homepage www.european-patent-office.org was enhanced in its coverage and improved as far as the consultation is concerned.

The functionality has also been improved with the introduction of search possibilities on different parts of the homepage, in particular in the European Patent Convention, the Official Journal of the EPO which is now fully searchable in three languages since January 1998 and the Directory of professional representatives.

All official communications of the President of the EPO as well as the regulations implementing the EPC are also made available on the Internet via the EPO homepage.

In this period of heavy recruitment for the EPO, the EPO homepage is also efficiently used for the publication of vacancy notices for different type of post within the EPO.

A link to the esp@cenet service is available since the official release in October 1998.

With 1.3 millions hits per month by the end of 1998, the EPO homepage has now become one of the most used channels of communication between the EPO end the public.

## II. 4. Word Processing and Office Automation

### II. 4.1 General Text Processing

The EPO uses WordPerfect 6.1 as a standard text processing software office wide. Examiners working in BEST, are equipped with especially formatted versions of WordPerfect allowing efficient drafting of communications with applicants and representatives.

### II. 4.2 CAESAR

CAESAR (Computer Assisted Editing of Search- and Annex Reports) is an integrated system working at individual, directorate and office (mainframe) levels. Individual intelligent workstations (PCs) are used by examiners for drawing up and editing search reports. Reports are printed on local, shared printers. Inspection and acceptance of the produced documents and further processing is done at directorate level. At the Office (mainframe) level a link with the EPOQUE system allows data to be imported into CAESAR, saving retyping. Links to other mainframe databases assist in the creation and checking of the report and links to SPDB, the database of search reports, permit the storage of the CAESAR report and other search related documents and data to update the search area documentation.

The system was made available to all search examiners in 1991.

In 1998 the system was further developed and improved in order to adapt to new needs and new formal requirements.

The new tools, introduced in 1997, for producing all administrative forms for special types of searches, like Non-Unity and Incomplete searches, have further been improved and completed by a system for replacing the paper-based A2 procedure by an electronic alternative e.g. delivering the A2-data and translated titles in an "electronic" way and allowing an on-line checking and correction (if needed) of these data and, subsequently, a direct transfer of the data to EPASYS.

The fact that CAESAR produces now all search related data in "digital" form is of fundamental importance for an automated exchange of these data with other 'clients' like PHOENIX, WIPO, INPI and for the on-line availability of these data.

The high degree of formatting of these data allows, in addition, an automatic extraction of the data for other databases like DOSYS, REFI, SERR-file etc.

# III. MATTERS CONCERNING ABSTRACTING, CLASSIFYING, RECLASSIFYING AND INDEXING OF TECHNICAL INFORMATION CONTAINED IN PATENT DOCUMENTS

## III. 1. Abstracting, Reviewing, Translating

In the framework of treating European applications, the examiner check abstracts submitted by the applicants on completeness and conciseness. If necessary, abstracts are corrected and improved.

Non-English abstracts of European applications are translated by a contractor into English before adding them to the central documentation databases.

## III. 2. Classification

### III. 2.1 Classification and Reclassification Activities

A total of 331,172 documents was classified in 1998 of which 215,434 intellectually by the examiners and 115,738 automatically by means of the computer classification/family system.

A total of 529,588 documents was reclassified according to the internal classification scheme of the EPO (ECLA).

### III. 2.2 Classification Systems

For its searches, the EPO is using an internal EPO classification system (ECLA) based on the IPC. The following table gives the distribution of the subdivisions (groups, search files) over the schedules used.

| | number of subdivisions | |
|---|---|---|
| schedule according to IPC. philosophy (ECLA) | | |
| - complete (backlog reclassified) | 85,288 | |
| - complete from a certain data (backlog still in another schedule, see below) | 36,530 | |
| total | | 121,818 |
| ICO indexing schemes | | 50,774 |
| former IIB-NL schedule (IdT) | | |
| - for new documents | 0 | |
| - backlog | 11,388 | |
| total | | 11,388 |
| grand total of used subdivisions | | 183,980 |

Parts of the document collection, mainly JP and RU/SU abstracts, are not classified according to the internal classification system ECLA. Searches in these collections are carried out using the International Patent Classification.

### III. 3. ICIREPAT Type and Domestic Deep Indexing Systems

The following former ICIREPAT type systems, which can be searched online, were updated:

| System | IPC. | Storage medium | File content (12/98) | 1998 EPO Indexing |
|---|---|---|---|---|
| 03 AD Converters[1)] | H03K 13/00 | magnetic disc | 11,051 | 0 |
| 25, 5N Laminates[1)] | B32B | " | 53,931 | 281 |
| 17 Lubricants[1)] | C10M | " | 25,273 | 390 |
| 7A, 7B Alloys[2)] | C22C | " | 53,605 | 0 |
| 13 Telephony[3)] | H04H, H04Q | " | 27,076 | 290 |
| 18 Connectors (closed)[4)] | H01R, H05K (partly) | " | 27,510 | 0 |

1) ICIREPAT systems with EPO as focal office, system 5N discontinued
2) ICIREPAT systems with GB as focal office
3) EPO internal systems
4) no further activity

### III. 4. DOCTOOL

The DOCTOOL application (DOCumentation TOOL) allows EPO examiners to add electronically information to the documents in the form of classification symbols, ICO codes, keywords and free text. It helps examiners to keep the results of in-depth analysis of documents they have studied during the search process, and thereby to enhance the contents of the EPODOC database.

The DOCTOOL application was used in 1998 by most examiners in The Hague, Berlin and by the BEST examiners in Munich. The user acceptance is high and the number of allocations assigned to documents via DOCTOOL is increasing steadily.

An overview of the increase in number of data available in EPODOC as a result of an intensive usage of DOCTOOL is given in the following table:

| Type of information | Number of documents | | | |
|---|---|---|---|---|
| | 1995 | 1996 | 1997 | 1998 |
| ICO codes | 550,000 | 750,000 | 944,000 | 1,150,000 |
| Keywords | 18,000 | 125,000 | 213,000 | 336,000 |
| Free text | 3,000 | 25,000 | 36,000 | 49,000 |

The DOCTOOL application (DOCumentation TOOL) has been extended with the CLIPON module (CLassify Incoming Patent ONline). CLIPON allows examiners to classify new patent documents on-line. The system was launched in June 1998. Examiners could either use it for the capture of classification data , or continue with the more traditional classification on paper. By the end of 1998, 50 % percent of incoming patent documents were classified using the CLIPON system and about 60 % of the 750 examiners classifiers are using CLIPON on a regular basis.

### III. 5. Full Text Processing for Search Purposes

In 1995, the EPO started an OCR project to convert over 1.3 million documents from facsimile data (BACON format) into MMMT (Mixed-Mode Magnetic Tape) format. It concerns the documents published from 1970 until today.

Only one document per patent family is selected, from the countries CH, DE, EP, FR, GB, WO, and only if no character coded form is already available. The 1.3 million documents have now been converted.

A further extension has been agreed for the conversion of frontfile documents FR, GB, WO and for the conversion of pre-1970 documents CH, DE, FR, GB according to specific domains of technology. This extension amounts to a total of about 700,000 documents.

The quality of the conversion is assessed by a mathematical formula which takes into account the conversion of each character and the superfluous generation of characters. The minimum quality level of converted text is 98%. This level is regarded as financially affordable, and considered as sufficient for online searching by a representative group of EPO search examiners.

The mixed-mode format also improves the legibility of the converted page in reconstructing it close to the original, and by adding into the text the original images whenever necessary, for example in case of bad image quality or specific layout of information). This results in an improved apparent quality for reading purposes.

# IV. SEARCH FILE ESTABLISHMENT AND UPKEEP

## IV. 1. Storage and File Building

The following table gives 1998 figures about the size of the main documentation management database DOC DB and related files.

| File | Service |
|---|---|
| DOC DB | entry via publication number, application number or priority number; in 1998, a total of 948,170 documents have been introduced, bringing the grand total to 24,089,621 records |
| INVE | inverted DOC DB file with entry via EPO classification symbol |
| BER FILE | additional filings in Berlin with entry via publication number |

## IV. 2. Contents of the Search Documentation

The total number of documents present in the search documentation (search files and computer files amounts to

| | |
|---|---|
| patent documents | 26,107,730 |
| abstracts (JP, SU/RU) | 6,771,439 |
| non patent literature | 2,731,201 |
| total | 35,610,370 |

## IV. 3. Documentation from Other Offices Considered Part of the Search File

The search documentation used of the EPO consists of the following parts:

- PCT minimum documentation according to the Patent Cooperation Treaty, Rule 34
- selected patent documentation of EPC member states not forming part of PCT

  DE, FR and GB published before 1920
  NL from 1912
  BE from 1926
  LU from 1946
  SE from 1984
  DE-U from 1985

## V. Activities in the field of Automated search systems

The activity within the EPO internal online services has increased further during the year 1998. This year has shown, as in the preceding years, a continuing increase in the use of all the EPOQUE applications.

### V. 1. EPOQUE RETRIEVAL and VIEWER - BNS

The *EPOQUE suite of applications* is the cornerstone of the automated prior art search at the EPO. It consists of three major parts:

- a *search and retrieval* tool, with growing emphasis to the user's added value input (DOCTOOL project)
- a *viewer* part providing display and browsing of the full documents for one member per patent family - including the first page abstracts and images - in dual mode with ASCII text and facsimile drawings, in the selection / elimination process,
- the electronic equivalence of the entire numerical collection - providing copies (paper and electronic facsimile) of the complete original documents for in-depth study before citation in the search report.

### V. 1.1 EPOQUE RETRIEVAL

EPOQUE is a host service installed on the EPO mainframe computer enabling the search examiners to interrogate a number of databases from their workstations.
In a common environment, with a sophisticated user interface, interactive interrogation is possible of databases from three different sources:

- internal (databases loaded on the EPO mainframe)
- external (databases loaded on external commercial hosts)
- personal (databases created by the examiners themselves)

The aim is to have these three retrieval parts of EPOQUE permanently available for use, with one single way of interrogating them. The user interface that permits this includes the functionalities Internal, External, Personal, Preparation and macros, Download, Function Keys, Language and Data conversion. A simple click with the mouse or combination of keyboard strokes as well as the "drag&drop" possibility will activate whatever option the user wants to select.

### V. 1.2 Internal EPOQUE databases

The internal databases can be subdivided in three main families:

- databases produced by the EPO,
- databases produced by Trilateral partners (JPO and USPTO),
- databases created from external commercial database producers or editors.

- In the first category, the major database EPODOC contains the bibliographic data of the EPO's patent documentation, currently over 27 Millions documents. EPODOC contains all patent applications with their ECLA classification symbols, abstracts for one member per family, titles, cited references and all added value codes originated by the examiners and uploaded via DOCTOOL.
  Other databases like EUREG (European Patent Register), DOSYS (administration of applications in stock), REPA (examiner specialist in a given field) or ECLA (text of the EPO's classification scheme) provide valuable information to the search examiner in his/her daily work. EPOS is one of the databases created by the users. EPOS is a collection of synonyms or related expressions to a certain technical concept and organised per technical field.

- In the second category, produced by Trilateral partners, PAJ (Patents Abstracts of Japan) gives access to the English abstracts of first filed applications in Japan. FTERMS gives - in a restricted number of fields - the F-term classification allocated by the JPO, while FTCLA presents the corresponding classification scheme, fully searchable. In 1998, the FTERMS codes have been included in EPODOC and the stand-alone FTERMS database has been discontinued.
  From the USPTO, databases such as UCLA (text of the USPTO's classification scheme) and AKFU (catchword index) are loaded as such, while the incoming US abstracts are included in EPODOC. Full text of US patents is also delivered by the USPTO on a monthly basis and loaded in the TXTUSn full text databases.

- Other full text databases have been developed which are used not only for displaying in the EPOQUE - VIEWER but also for full text searching. TXTEPn contains the full texts of the EP publications (3 different languages) and TXTUSn contains the US publications. Other TXTnnn databases contain data originating either from SGML coded documents for DE and CH documents or from the OCR process of the BACON images, with full texts of FR, GB, DE, WO, CH applications. The collection covers with full text retrieval capabilities at least the documentation published after 1970 for one member per family. In a restricted number of technical fields, OCR techniques will be used to extend the coverage before 1970.

  The databases based on data delivered by external producers today are:
  . WPI (World Patent Index produced by DERWENT),
  . INSPEC (INformation Services for Physics, Electronics and Computing produced by IEE The Institute of Electrical Engineers) and
  . TDB (Technical Disclosure Bulletin produced by IBM)
  . FSTA (Food Science and Technology Abstracts produced by IFIS - International Food Information Service)
  . COMPDX (Compendex*Plus produced by Ei - Engineering Information Inc.)
  . XPESP (produced by Elsevier Science Publishers)

  They give access to the abstracts of patent - and non-patent literature. TDB is the full text of all articles contained in the Technical Disclosure Bulletin. XPESP contains the full-text articles of 127 Elseviers Journals corresponding to those for which the EPO has a subscription.
  Other major non-patent publishers such as IEEE, IEE and AIP will are still under study.

As on 31.12.1998, the EPOQUE retrieval service gave access to the following list of in-house databases. The databases which have been introduced in 1998 are followed by '*'.

| | |
|---|---|
| AKFU | USPTO catchword index |
| ALLOYS | Alloys, metal compositions |
| APC | Decisions of the boards of appeal |
| BERDOC | Berlin documentation |
| BOCA | Book catalogue |
| CADOBNS | Correspondence between CA documents and BNS accession numbers |
| CIS | Complementary Information System/linked indexing codes |
| CLIENT | Travel information |
| COMPDX | Compendex*Plus |
| CONV | EPO conventions and guidelines, PCT, Community Patent Convention |
| CXCLA | Compendex classification scheme |
| DOC46 | Additional information on the search documentation |
| DOSYS | Dossier system |
| ECLA | EPO classification scheme |
| EPODOC | EPO documentation |
| EPOS | EPO synonyms |
| EUREG | EPO register |
| FLDNAME | Field and index names of all EPO databases |
| FSTA | Food Science Technology Abstracts |
| FTCLA | JPO F-terms and text of associated concepts |
| FTERM | JP applications and associated F-terms |
| ICLA | INSPEC classification scheme |
| IDT | Indeling der Techniek - old Dutch IDT classification scheme |
| INSPEC | INformation Service for Physics Electronics and Computing |
| IPCn | versions 1-6 of the IPC (n=1, 2, 3, 4, 5 or 6) |
| KWCLA | DOCTOOL keywords |
| LEGLIT | DG3 selection of articles of legal publications |
| MICADO | Minutes of the Administrative Council Meetings |
| NPL | EPO Non Patent Literature |
| PAJ | Patents Abstracts of Japan |
| PEP | Peptides |
| PHOTO | Photography |
| PLD | Patent Law Documents |
| REFEPO | References relating to EP applications prior to their publication |
| REFI | Published references from search examination and grant procedures |
| REPA | Search fields distribution |
| RM03 | AD converters |
| RM13 | Telephony |
| RM17 | Lubricants |
| RM18 | Connectors |
| RM25 | Laminates from 1971 |
| RM5N | Laminates up to 1971 |
| RM7A | Ferrous alloys |
| RM7B | Non ferrous alloys |
| SADIQ | Quantitative glass compositions |
| STEAM | Steam generation |
| TDB | IBM Technical Disclosure Bulletin |
| TXTCHF | Full text of Swiss French language applications |
| TXTCHG | Full text of Swiss German language applications |
| TXTCHI * | Full text of Swiss Italian language applications |
| TXTDE1 | Full text of German applications |

| | |
|---|---|
| TXTEP1 | Full text of English language EP applications |
| TXTEPF | Full text of French language EP applications |
| TXTEPG | Full text of German language EP applications |
| TXTFR1 | Full text of French applications |
| TXTGB1 | Full text of British applications |
| TXTUS1 | Full text of US patents up to 1994 |
| TXTUS2 | Full text of US patents from 1995 |
| TXTWO1 | Full text of English language WO applications |
| TXTWOF | Full text of French language WO applications |
| TXTWOG | Full text of German language WO applications |
| UCLA | USPTO classification scheme |
| WPI | Derwent World Patent Index |
| WPICLA | Derwent EPI manual code scheme |
| XPESP | Full text of Elsevier Science Publications |

## V. 1.3 EPOQUE VIEWER and 'old' First Page

### FIRST PAGE

In the patent world, almost all patents now have a standardised first page containing bibliographic data, title, abstract and a 'pertinent' image.
The FIRST PAGE software was able to reconstruct from the abstracts and bibliographic data available in EPODOC and WPI and the clipped image of the front page, the first page of the patent for display on the screen.
This service has been discontinued in October 1998 as the EPOQUE VIEWER provides also this service.

### EPOQUE VIEWER

The EPOQUE VIEWER system provides the first page information at the same level as the full text and all drawings of the full documents, thereby reconstructing the complete application in dual mode.

The roll-out of the EPOQUE VIEWER with the EPOQUE PM version at the beginning of 1995 represented the realisation of the second stage of this

**EPOQUE I Search/RETRIEVAL --> EPOQUE II VIEWER --> BNS VIEWER**

model of electronic computer assisted search system. The function of the VIEWER is to allow the manipulation of both the first page image and all drawings associated with a document in combination with the character coded full text and/or the abstract(s), in a very fast online and interactive mode. The VIEWER stage is intended to limit an answer set of tens or hundreds of records retrieved by the boolean search strategies to a set of the most relevant ten to thirty documents for viewing in facsimile format (in near line mode using the BNS VIEWER, which was implemented in 1996).

Functionalities which can not be dealt with in conventional paper searches are focusing on different levels of highlighting, real *navigation* inside a document and, as close as possible, *automatic positioning at a needed passage or subpart of an application.* Allowing the user to mark relevant areas inside the documents is part of this added value navigation. Tagging of relevant documents is possible and this may be done to save one set, or two sets selected according to two different criteria.
The image part of the VIEWER allows manipulation of the images or drawings by means of rotation or zoom.
In 1997, embedded image handling has been added to the VIEWER allowing to display either inside the text or in a separate window the images present inside the full-text of a patent. This is specially appreciated when working in chemical technical area where a lot of formulas and tables are embedded inside the text.

### V. 1.4 Coverage of the EPOQUE VIEWER collection

The EPOQUE VIEWER collections cover as much as possible the information needed by the examiners to carry out the selection/elimination process of the search procedure.
For the documents published after 1970, EPOQUE VIEWER provides systematically access to the min-PCT documents. Per patent family only one document is available: approximately 4,4 million unique documents. The same family member provides the text, the drawing images, and the FPAGE information (abstracts from EPODOC, WPI, PAJ and clipped image of the first page). Those documents that have text available in ASCII form are loaded immediately. The others are captured by OCR (Optical Character Recognition) techniques of the corresponding BACON facsimile copies. A 3-year contract for OCR -ing the documents needed to fill up the backfile was completed in 1998.

The extension of the coverage, before 1970, as in some technologies the relevant prior art can be rather old - is linked to the Bottom-up approach, i.e. requested by the users according to their needs and the technical fields they are working in.
In this way additional drawings for 4 millions pre-1970 documents have been loaded in the EPOQUE VIEWER collection. This extension is an on-going process and it is planned to also extent the coverage of full-text documents pre-1970 as soon as the back-file process is completed (expected to start early 1999).

### V. 1.5 BNS - the access to the original document

The roll-out of the BNS VIEWER with the EPOQUE suite of application version at the beginning of 1996 represented the realisation of the third stage of this

EPOQUE I Search/RETRIEVAL --> EPOQUE II VIEWER --> BNS VIEWER

model of electronic computer assisted search system.

The BNS VIEWER allows access to facsimile images of patent (and other) documents in near-line mode; near-line in this context currently means availability on the screen of a set of documents in less than five minutes from giving the request command - this is far better than the BNS contract had foreseen.

The BNS collection comprises the PCT minimum documentation since 1920, as well as a number of other national collections, in numerical order, containing about 30 million documents including scanned documents compressed according to CCITT Group 4 T.6 and mixed mode format documents. It also includes parts of the non-patent literature used at the EPO. The data is stored on and accessed from robots, containing double length, double density cartridges of 800 Mb each, randomly placed in 4 robots. Each robot holds 6 000 cartridges.
An active backup duplicates this entire collection, in 4 additional robots, with all the tapes organised in reverse order - for faster access. They represent 15 Tb of storage with a further 15 Tb for backup.

The BNS service has the possibilities to support the delivery of copies of about 35 000 documents per day. This number includes additional services such as:
- the near-line delivery of documents to the examiners
- the making of the copies of documents cited in the search reports for mailing to the patent applicants
- the copies for updating the classified paper collection
- copies for National Offices of the member states of the EPO
- copies for single sales to private customers
- copies for public file inspection requests
- etc.

A major component of the BNS system is the BPS, the BACON Printing Service.
Tagged pages, whole documents with tagged pages or specific parts of documents can be printed either on decentralised departmental laser printers or on centralised printers, as well as page per page on the local user printers. The priority for the different print batches depends on the number of pages requested to be printed. It is expected that for detailed in-depth study before the citation in the search report, examiners print 4-10 documents or parts of documents.

## V. 1.6 Use of the EPOQUE RETRIEVAL - VIEWER - BNS system

**EPOQUE RETRIEVAL**
The main change for the EPOQUE search access has been the tremendous increase in the number of users as well as the usage of the retrieval system by the examiner community. An increase of 21.6 % in mainframe active connection time has been recorded for EPOQUE RETRIEVAL.

**Table 1 : EPOQUE RETRIEVAL**

**Average number of users per month**

| | The Hague | Berlin | Munich | Vienna | National Offices | External Offices | Total |
|---|---|---|---|---|---|---|---|
| **1991** | 700 | 104 | | | | | **804** |
| **1992** | 1,021 | 107 | 21 | 1 | 9 | | **1,159** |
| **1993** | 1,015 | 100 | 42 | 3 | 25 | | **1,185** |
| **1994** | 1,001 | 96 | 190 | 7 | 95 | | **1,389** |
| **1995** | 1,017 | 101 | 285 | 15 | 248 | | **1,666** |
| **1996** | 987 | 98 | 388 | 9 | 436 | 8 | **1,926** |
| **1997** | 1,044 | 116 | 592 | 7 | 625 | 15 | **2,399** |
| **1998** | 1,122 | 115 | 772 | 5 | 698 | 13 | **2,725** |

Table 2 shows the number of mainframe active search hours by all the users accessing the databases for retrieval and search work in EPOQUE RETRIEVAL.

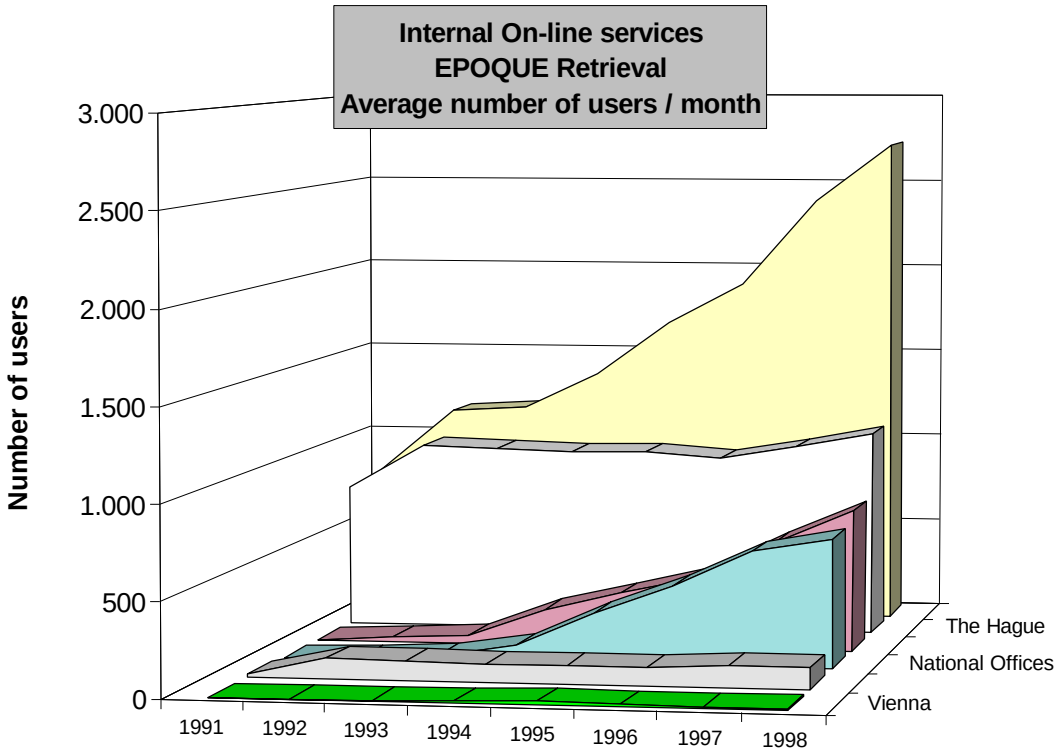
**Table 2 : EPOQUE RETRIEVAL**

**Connection time (in hours)**

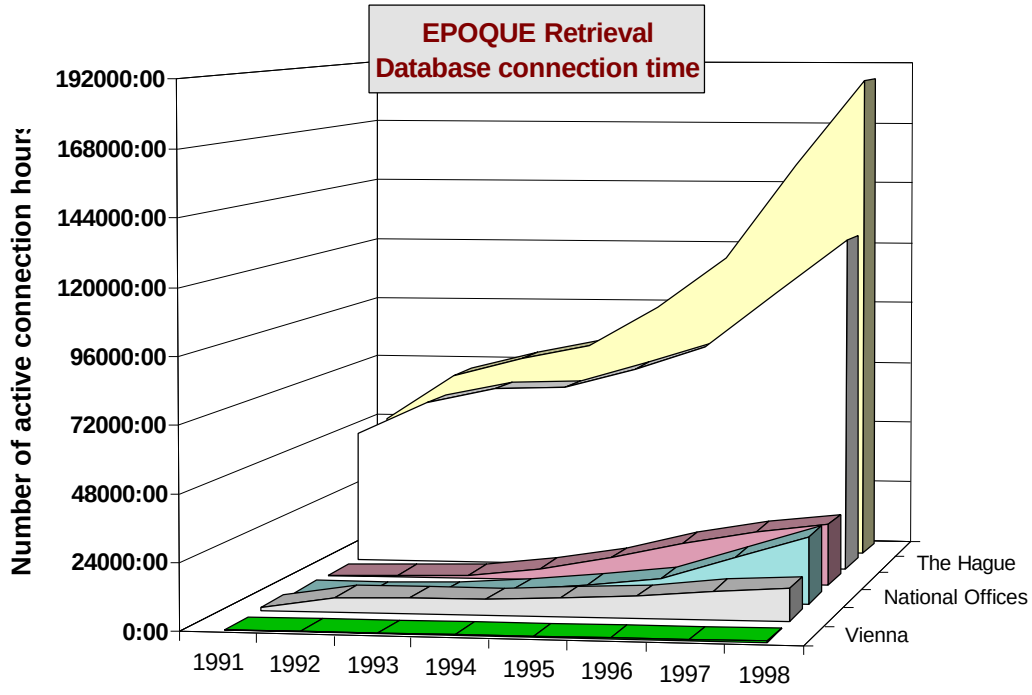
| | The Hague | Berlin | Munich | Vienna | National Offices | External Offices | Total |
|---|---|---|---|---|---|---|---|
| **1991** | 45,133 | 5,200 | | | | | **50,333** |
| **1992** | 61,672 | 5,410 | 701 | 1 | 367 | | **68,151** |
| **1993** | 67,417 | 5,572 | 1,413 | 15 | 905 | | **75,322** |
| **1994** | 68,240 | 5,635 | 4,052 | 93 | 2,490 | | **80,510** |
| **1995** | 76,270 | 6,669 | 8,233 | 281 | 4,552 | | **96,005** |
| **1996** | 84,789 | 7,918 | 15,108 | 107 | 8,022 | 315 | **116,259** |
| **1997** | 105,657 | 10,551 | 19,803 | 71 | 16,305 | 444 | **152,831** |
| **1998** | 126,112 | 11,740 | 23,145 | 51 | 24,486 | 270 | **185,804** |

The same information is presented graphically in graphs 1 and 2.

**Graph 1**




**Graph 2**



External on-line services showed between 1989 and 1993 a continuing decrease in the number of hours spent online on commercial hosts. During 1994 this general trend changed. During 1998, for all EPO sites, the time online increased by 9.7 % with an increase in the global cost of 9.9 %. Commercial hosts are being used mainly in the Chemical technical fields - see the overview of the most used external databases in Table 3.

**Table 3 : External Host access - EPO Hague usage - 1998**

| Most used External Database relative to costs | % of costs |
|---|---|
| **CAS structure** | **42.2** |
| **CAS bibliographic** | **34.2** |
| **BIOSIS** | **5.7** |
| **EMBASE** | **3.5** |
| **SCISEARCH** | **2.3** |
| **MEDLINE** | **2.1** |
| **PATDPA** | **0.9** |
| **BIOTECHABS** | **0.7** |
| **APIPAT/APILIT** | **0.5** |
| **METADEX** | **0.4** |
| **PAPERCHEM** | **0.3** |
| **CAB** | **0.3** |
| **CHEMSEARCH** | **0.3** |
| **...** | |
| **Total bibliographic** | **57.8** |
| **Total structure** | **42.2** |
| **Total** | **100.0** |

## EPOQUE VIEWER and 'old' First Page

Concerning the full text and image access, the EPOQUE VIEWER use showed a steadily increasing trend throughout the year 1998. The number of displayed documents displayed using the EPOQUE VIEWER has increased by 72.8 % compared to 1997. The term "document" refers to a patent number being used to generate text and/or images and/or drawings in the VIEWER; these may be abstract(s), full text or both, together with first page images, drawings or both. In total information relating to over 43.7 million patent numbers was displayed in 1998, reaching a peak in November with more than 5 million for that month.

In October 1998 the 'old' First page application has been discontinued.

| | | Users/month | Displayed Documents | Documents / working day |
|---|---|---|---|---|
| 1994 | First Page | - | 7,066,154 | 28.04 |
| 1995 | First Page | 596 | 4,190,861 | 17.462 |
| | EPOQUE II VIEWER | 675 | 7,765,869 | 32.358 |
| | Total | 1271 | 11,956,730 | 49.82 |
| 1996 | First Page | 292 | 1,828,363 | 7.618 |
| | EPOQUE VIEWER | 1030 | 15,759,001 | 65.663 |
| | Total | 1322 | 17,587,364 | 73.281 |
| 1997 | First Page | 240 | 2,009,155 | 8,372 |
| | EPOQUE VIEWER | 1434 | 25,306,511 | 105,435 |
| | Total | 1674 | 27,315,666 | 113,807 |
| 1998 | First Page (discontinued 10/1998) | 155 | 1,143,530 | 4,574 |
| | EPOQUE VIEWER | 1976 | 43,720,332 | 175,457 |
| | Total | 2131 | 44,964,332 | 180,031 |

## BNS VIEWER and Printing

In 1998, the usage statistics on the near-line access to BNS showed that as well as the number of users, the number of displayed and printed documents have increased compared to 1997 by respectively 14,2%, 52,4% and 31,9%.

### Table 1 : BNS VIEWER

**Average number of users per month**

| | The Hague | Berlin | Munich | Vienna | National Offices | External Offices | Total |
|---|---|---|---|---|---|---|---|
| **1997** | 1,069 | 127 | 753 | 4 | 42 | 6 | **2,001** |
| **1998** | 1,191 | 124 | 881 | 4 | 80 | 4 | **2,284** |

Table 2 shows the number of documents for which at least a page has been viewed.

### Table 2 : BNS VIEWER

**Number of displayed documents**

| | The Hague | Berlin | Munich | Vienna | National Offices | External Offices | Total |
|---|---|---|---|---|---|---|---|
| **1997** | 675,267 | 44,191 | 113,476 | | 4,308 | 236 | **837,478** |
| **1998** | 1,050,290 | 70,293 | 140,733 | 22 | 14,223 | 677 | **1,276,238** |

Table 3 shows the number of documents printed by the BNS near-line system. This includes prints issued from the BNS VIEWER as well as the prints generated by the direct document ordering utility called OPAT.

### Table 3 : BNS Printing

**Number of printed documents**

| | The Hague | Berlin | Munich | Vienna | National Offices | External Offices | Total |
|---|---|---|---|---|---|---|---|
| **1997** | 518,175 | 64,835 | 170,888 | 9,095 | 51,095 | 1 | **814,089** |
| **1998** | 693,463 | 74,869 | 228,803 | 18,960 | 57,603 | 39 | **1,073,737** |

## V. 2. Administrative Management Systems

### V. 2.1 EPASYS/PIPS

#### Overview

EPASYS and PIPS are the central systems for the automation of the European and the PCT patent applications and demands (PCT chapter I: ISA; PCT chapter II: IPEA). These systems have been developed as independent systems: EPASYS in 1976 and PIPS in 1990/91. They manage all data and procedural steps through the whole life cycle of an application.
The following table gives an overview about the quantities which are handled by both systems:

| | EPASYS | PIPS |
|---|---|---|
| Number of applications/demands stored | 1,000,000 | 90,000 |
| Growth per year | 70,000 | 20,000 |
| Number of transactions | 60,000 | 4,000 |
| Number of regular users | 500 | 200 |
| Number of occasional users | 500 | 200 |
| Number of terms | 250 | 30 |
| Number of printouts per day | 20,000 | 2,000 |

#### Plans

After almost 20 years the EPO has decided to rewrite both systems between 1996 and 1999 in an integrated fashion to

- assure continuity of the systems and improved services, the current ones being close to the end of its lifecycle

- provide a greater service coverage for EP and PCT cases and post grant renewals (anticipating on possible Community Patents)

- better ability to support other systems (e.g. system for the storage of dossiers)

Next to this functional requirements it has been decided to reconsider also the technical platforms. In this respect, following an in depth study, it has been decided to rewrite the systems with the Data Base Management System DB/2 in CICS/COBOL. The client/server functions of the current systems will be further enhanced for the electronic storage system for dossiers (PHOENIX).

**Status**

The project EPASYS Rebuild (EPASYS/R) will deliver a new procedural control system in phases. Next to redesigning and rewriting the system the project will ensure that the present system will continue working until EPASYS/R is completed. Special emphasis is put on the Y2000 compliance.

At present the project has delivered the first product: A technically and functionally reviewed Post Grant System. This system administers post grant fees in particular the share of the fees which the EPO receives from its member states.

## V. 2.2 PIR (Patent Information Register)

No visible major changes took place in 1998. Preparations were made, however, together with the Principal Directorate Documentation, to include the PIR services in ESP@CENET; the first results should be produced in the course of 1999.

## V. 2.3 DATIMTEX (Data Image and Text)

The system DATIMTEX processes, stores and delivers the content of all EP applications and specifications which are ready for A or B document publication (the bulk of data capture and all printing is carried out by external contractors). Weekly batches of information are produced containing the bibliographic data, the abstracts, descriptions, claims, drawings and search reports and any images of these documents. As from 1991 all EP and Euro-PCT documents have been fully electronically published on the basis of WIPO standard ST.32 (SGML Standard Generalised Markup Language) together with WIPO standard ST.33 for image data. From 1987 to 1991 only the text data was captured.

The SGML text databases contain at present 1 million documents which represents 42 GB of data. Image data is at present held on tape cartridges but, for data from 1991 onwards, these can be ‘merged’ with the text data in order to create true ‘mixed-mode’ data which allows, for example, the creation of MIMOSA CD-ROMs.

The text and image data are further substantially used in search and examination (e.g. CASEX), the creation of internal databases (e.g. EPOQUE), external commerical databases, and the production of other publication media (e.g. CD-ROMs: ESPACE, MIMOSA). The bibliographic data is also used for the production of the EP Bulletin and as input to the “Common Software” (Spirit Version 2) which allows other patent offices to create their own databases of patent information. In addition, it is hoped to transfer more and more of this data online to exchange partners - starting with bibliographic data inSGML format.

The process of electronic publication, which was started already in 1977, made a major step forward with the implementation of ST.32 (SGML) in 1985 as the coding language for electronic documents. This approach has been further consolidated over the years and allows, if required, the implementation of future processing methodologies (such as that used in Internet/Intranet systems) and easier online data transfer.

## V. 2.4 SDMS (Search Data Management System )

The Search Data Management system validates, stores and distributes the electronic data of Search Reports. All ongoing sub-projects are in some way related to these mentioned functions:

- validation
  automated validation or computer-supported user validation regarding the correctness and completeness of data of search reports that are the basis for the proper functioning of many other systems

- storage
  storage in the Search Process Database (SPDB) of the electronic data of search reports and cited references of all stages of the patent granting as input for the distribution function

- distribution
  (1) to the delivering systems like CAESAR and CASEX for which SDMS serves as a main-frame backup
  (2) to the requiring systems like EPOQUE, EPASYS, ADMPMI, ELPAC (publication)
  (3) to third parties like WIPO, INPI, other Patent Offices (US and JP), the applicants, commercial database providers

The following sub-projects are under development:

- PCT Procedural Review
  Sub-project that aims at streamlining the activities that the EPO undertakes in its role as International Searching Authority and as Receiving Office for WIPO

- Central Printing of Search reports (CPS) / Citations (CPC)
  Sub-project that aims at using the central printing infrastructure within the EPO for the production on paper of Search Reports and Cited References for the recipients such as the applicants, USPTO, JPO, WIPO (operational since the end of 1997)

- Interfacing with delivering and demanding systems
  Sub-project that revives each time that a delivering system (e.g. CAESAR) or demanding system (e.g. Publication) or user (e.g. WIPO) offers or requests new types of data and that aims at adjusting SDMS to these new requirements in an up-wards compatible way.

- Ongoing SDMS maintenance
  Sub-project that aims at constantly correcting errors that were a legacy of the old systems from which SDMS took over or that were the result of a lack of validation in the delivering systems or that were caused by temporary mal-functioning of programs.

## V. 3. Equipment and Software

In 1998, the program of assistance to the National Offices,WIPO, JPO and USPTO has been expanded:

- to improve access capacity and data exchange mechanism. EPO, USPTO and EPO are now linked via the secured network PATNET. In view of the future participation of the National Offices to PATNET Frame relay, connections have started to be established with FI, CH, ES and soon DK and FR.
- to prepare the launch of esp@cenet as defined in CA/160/97 in July 98. One Netfinity server 7000 was installed in each National Office with two additional ones for EP and WO data operated by EPO.

The Office-wide installation of ca. 3500 Pentium II workstations with OS/2 Warp 4.0 has been successfully completed. The browser functionalities have been included in the system configuration.

In 1998, significant improvements were made to the technical infrastructure to improve availability and performance. At the beginning of 1998, the single mainframe has been replaced by three
machines, using the new CMOS technology, with a further upgrade in July. The total processor capacity has more than doubled compared with 1997.

Mainframe disk capacity has been expanded to allow further implementation of large databases, e.g. for EPOQUE (images, text), BNS (images) and EPASYS. A large additional capacity increase of 2 TeraBytes has been set up for the implementation of image data accessible via esp@cenet. The adequate disk storage and tape robotics have been installed for the roll out of the PHOENIX system.
The printing infrastructure has been further expanded for central and decentral printing in The Hague and Munich.

The replacement of the IDMS database management system currently in use by the DB/2 database management system has continued. Progress was made with the POSTGRANT system in production. The EPASYS Rebuild system is the next one and the complete replacement is expected to take place over a number of years.
A second computer room was installed in the recently acquired Shell building. Most of EPO's IT equipment have been split over the two computer rooms to improve the overall physical availability and security of our system infrastructure.
Three new completely isolated production environments were set up in order to safely and efficiently carry out systems work necessary to test Year 2000 changes and to prepare for the century change.

## V. 4. EASY Project

### Development of different EASY modules

During 1998 various modules of the EASY software have been developed in collaboration with the World Intellectual Property Organisation, the EPC member states and the United States Patent and Trademark Office. These different modules have all been built on top of the EASY common core (file manager) developed by the European Patent Office. Important features of the EASY common core include multi-language support, maintainability and data-re-usability.

The following table shows the status of the different EASY modules:

| Office | Module | Form | Current status |
|---|---|---|---|
| EPO | EP-EASY | Application form (F1001) | Operational[1] |
| | EP-EASY | Entry in regional phase (F1200) | Prototype |
| WIPO | PCT-EASY | Application form (RO101) | Operational[1] |
| | PCT-EASY | Demand form (RO401) | Alpha version |
| INPI | FR-EASY | Application form | Beta-version |
| PRH | FI-EASY | Application form | Beta-version |
| IGE | CH-EASY | Trademark application form | Alpha version |
| USPTO | US-EASY | Application form | Prototype |

[1] The software is used for the filing of patent applications both on paper and floppy disk. The paper version still remains the legally binding version.

### Development of the EASY on-line filing module (SET-EASY)

The EPO has initiated the development of an on-line filing module which can be used to transfer the electronic file (application form including attached specification) generated by one of the EASY modules from the applicant/representative to the patent office. The on-line filing module of EASY allows for electronic signature (using smart card technology), secure data transfer (using strong encryption) and various receiving office functionalities. In collaboration with the European Patent Institute (EPI) a test will be conducted during 1999 by 10-15 applicants/representatives with this on-line filing module. While the first part of the test will be a technical test using dummy applications, the second part will be carried out using real applications without paper back-up. If the testphase proves to be successful, full-scale implementation might be considered for early 2000.

### Integration of EASY in the epoline® development

In line with EPO's strategic direction on electronic commerce during 1999 work will be carried out to further integrate the EASY on-line filing module within the epoline® environment.

## V. 5. STRAND Project

The STRAND search facility is currently used by more than 70 examiners from EPO-DG1, EPO-DG2 and from a few EPC member states. In order to be able to cope with the ongoing growth in number of users, number of searches and sequences within the database, the

STRAND DEC3800 server has been replaced by a DEC4100 server. This server allows multi-processors so that further improvement of the performance may be obtained by the addition of CPU's. At present the STRAND sequence databases comprise more than 3,000,000 sequences, from which more than 200,000 have been submitted with patent applications at the EPO.

## V. 6. PHOENIX Project

### Background

Following completion of the development of PHOENIX in October 1997, the EPO started acceptance testing of the system to be followed by a pilot usage from February 1998 to April 1998. For the pilot, all EP applications files directly in The Hague (approx. 20 per day) were indexed, scanned and processed using PHOENIX.

### Status

PHOENIX is maintaining its momentum with every new EP, Euro-PCT and PCT chapter 1 application being added to the system. In total, nearly 150,000 dossiers are currentlybeing managed electronically and over 40,000 pages of paper are being scanned every day. The impact of the change from old-style paper files to on-screen electronic dossiers has been felt both by the staff using the system and by the technical services supporting it. Yet,despite the obvious teething troubles and problems of adjustment and logistics, the system continues to expand and working on screen is becoming the norm. A plan is now in place to scan the whole backfile in DG1 by the end of January 2000 so that DG1 will no longer have a single paper dossier.

## V. 7. EPOLINE Project

EPOLINE is beginning to take real shape with studies underway to define key elements like technical architecture, security and public key infrastructure. At the same time, various pilots have been commissioned to demonstrate certain functionalities like online filing, online file inspection and smartcard usage so that detailed specifications can be drawn up. The epoline website also has a secure section where various interested parties from national offices and the EPO can exchange information. The first tangible result of EPOLINE is already operational in the online exchange of priority documents between the EPO and the Japanese Patent Office.

## VI. ADMINISTRATION OF THE INDUSTRIAL PROPERTY OFFICE LIBRARY AND SERVICES

A complete list of all products, publications, data and services available at the EPO can be obtained from the information desks at one of the EPO sites (The Hague, Munich, Berlin, Vienna).

## VII. MATTERS CONCERNING MUTUAL EXCHANGE OF PATENT DOCUMENTATION AND INFORMATION

### VII. 1. International Cooperation in the Exchange of Bibliographic Information

All bibliographic data from the newly published documents are exchanged with the National Offices of the EPO Member States on a regular basis.

### VII. 2. Medium Allowed for Filing Applications

All applications must be filed in paper form (however, see also V.4 "EASY Project").

## VIII. DEVELOPMENT COOPERATION ACTIVITIES OF THE EPO

### VIII. 1. Introduction

The Directorate for International Technical Co-operation of the European Patent Office carries out projects to help developing and transition countries to improve local standards of patent protection. It seeks furthermore to build up and modernise their industrial property systems with, in particular, the view of compliance with the TRIPS requirements . The aim of this co-operation with the countries of central Europe, Asia, Latin America, Africa and the Arab world is to encourage investment and the transfer of technology in countries where economic and trade relations with the European Union and other European countries are significant. It focuses in particular on training, expert advice and assistance in automation and documentation. The Directorate for International Technical Cooperation also carries out projects in the framework of EC cooperation projects.

### VIII. 2. Training

In 1998, 38 training courses were organised by the Office in the framework of international technical cooperation involving approximately 1.000 trainees. The previous year , all these training activities were reshaped under one structure that took the name of the EPO International Academy dealing with seminars common to multiple projects. One of the objectives set to the Academy for 1998 was to further improve the quality and content of the courses. Some of the courses and seminars were organized outside the EPO premises in cooperation with other IP offices or organisations (WIPO).

With its emphasis on European patent law and practice, CEIPI (Centre for International Industrial Property Studies, Strasbourg) also provides a forum for studying and discussing European industrial property law. The Academy builds on the work done at CEIPI, which remains its main partner in the patent-law field. Training offered by CEIPI in the framework of the “Euro-CEIPI” agreements with the EPO continue to be most successful. In 1998, about 400 prospective patent attorneys took part in the courses held in various cities throughout the EPC contracting states. Every year CEIPI also organises together with WIPO, the EPO and the French Patent Office (INPI) a seminar on juridical, economical and administrative aspects of industrial property.

### VIII. 3. Automation

Since 1995 the EPO has developed the “Common Software”. A Software specially designed for the management of the patent and trademark procedures of industrial property offices - a product jointly owned by the European Union and the European Patent Office. It was originally developed for the patent and trademark offices of central and eastern Europe as part of the European Union’s PHARE programme. In the RIPP beneficiary countries a technology transfer training programme has been carried out so that the offices concerned, and their sub-contractors, will be in a position to fully maintain the Common Software with limited support from the EPO as from 1999. During 1998 the EPO organised the procurement of the necessary hardware equipment and installed the Common Software at the Eurasian Patent Office in order to test it.

### VIII. 4. Technical co-operation with China

In October 1998, the EPO was confirmed as implementing agency for the "Horizontal Elements" component of the three year "EU-China IP Rights Cooperation Programme", financed by the European Commission. This-far reaching programme aims to support China's initiatives to improve and modernise its level of protection of intellectual property rights.

Bilateral cooperation with the State Intellectual Property Office (formerly "Patent Office") of the People's Republic of China continued to give support in *inter alia* specialised areas of examination, patent information matters and search techniques in 1998. On the occasion of the Ninth Joint Committee Meeting, held in Munich in November 1998, the EPO and the SIPO, headed by Commissioner Jiang Ying, agreed upon the bilateral technical cooperation plan for 1999. The technical assistance and related training activities in automated search techniques led to the successful transfer of the EPOQUE technology to the SIPO.

### VIII. 5. Technical co-operation with developing countries

More than 70 missions were organised in 1998 under the EPO programme of cooperation with Asia, Latin America, Africa and the Arab countries. A large number of trainees from these regions furthermore had the opportunity to participate in training courses organised in Europe.

An important part of the EPO bilateral programme was implemented in cooperation with WIPO; the main bilateral activities were carried out with the countries of south east Asia, Tunisia, Morocco in the Arab world, ARIPO in Africa and Mexico in Latin America.

## Latin America

EPO Technical cooperation with Latin America focused mainly on : Mexico, Brazil, Argentina and Chile. With Mexico, under the EPO - IMPI working agreement, the activities were directed mainly to production of in house CD-ROM, training and organisation of symposia for judges and patent attorneys.

The planned EC-funded project for Argentina and for Chile could not be signed during 1998. Bilateral co-operation has been reinforced to compensate for this delay, in the form of increased participation to seminar organised in Europe and a significant number of expert missions mainly in search and examination areas.

## Asia

For the main four offices in ASEAN : Indonesia, Thailand, the Philippines, and Malaysia, the EPO has agreed to a two-year bilateral programme beginning in 1998. The activities focused on three areas : Strengthening of the granting of patents, strengthening of documentation and patent information services and co-operation with professional representatives. The two smaller countries with whom the EPO have co-operated under ECAP, namely Brunei and Singapore, continued to participate in a number of regional activities and in training courses held in Europe.

The European Patent Office is also implementing, in co-operation with the OHIM, an EC-financed project for Vietnam. Although project work on the legal framework and administration of industrial property rights continued at about the same pace as during the first year, during the second year the focus shifted to IP enforcement. As Vietnam has applied for WTO membership by the year 2000, the country is modernising its intellectual property system. In the field of patents, the EPO is providing assistance to streamline examination procedures, to improve search documentation and to develop modern patent information services.

The European Patent Office had extensive discussions in order to finalise a contract with the EC for India and south east Asia.