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EXECUTIVE COMMITTEE

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ICIREPAT ACTIVITIES AND
ICIREPAT PROGRAM FOR 1971

Report by the Director of BIRPI

SUMMARY

The present report contains a general
report on the activities of ICIREPAT and
proposals for its program for the year 1971.

Introduction

1.   The present report deals with two matters concerning the
Paris Union Committee for International Cooperation in Informa-
tion Retrieval Among Patent Offices (ICIREPAT): a general
report on its activities, and its program for 1971.

General Report on ICIREPAT Activities

2.   In the 1969 session of the Executive Committee of the
Paris Union, the International Bureau was requested that the
1970 session of the Executive Committee and the Plenary
Committee of ICIREPAT be furnished with a comprehensive
report on ICIREPAT activities.

3.   The report, established by the International Bureau
in response to this request, appears as Annex A to the
present document. The same report was submitted to the
Plenary Committee of ICIREPAT as document IC/PLC/II/2,
dated August 7, 1970.

Program of ICIREPAT for 1971

4.   The draft program of ICIREPAT, as proposed by the
Technical Coordination Committee of ICIREPAT and endorsed
by the Director of BIRPI, appears as Annex B to the present
report.

5.   The same draft program has been communicated to the
participating countries of ICIREPAT (documents IC/PLC/II/7
and IC/TCC/IV/12,Annex III), in preparation for the deliber-
ations of the Plenary Committee of ICIREPAT which will meet
on September 16 to 18, 1970. Should these communications
elicit comments which might lead the Director of BIRPI to
consider certain changes in the draft program, he will pro-
pose such changes in a supplement to the present document.

6.   In any case, attention is drawn to paragraphs 20 to 23
of Annex A and the corresponding items in Annex B which
indicate the fields, outside the shared systems program, to
which the Secretariat recommends that ICIREPAT give priority.

7.   The Executive Committee is
invited to establish the program
of ICIREPAT for 1971. It may, in
doing so, wish to fix priorities
among the various points of the
program.

/Annexes A and B follow/

ANNEX A

GENERAL REPORT ON ICIREPAT ACTIVITIES

prepared by BIRPI

Introduction

1.   The present report is the first one of its kind. It is
intended to give a bird's eye view of ICIREPAT's tasks and
achievements. It is not addressed to the specialists,
members of the Technical Committees. They might find this
report too general, and omitting many, admittedly important,
details. But the aim of this document is to report on
ICIREPAT to those not involved in the daily work of ICIREPAT
but who, nevertheless, are the persons who give the general
directions to the representatives of national Offices and the
International Patent Institute and to BIRPI as far as the
program of ICIREPAT is concerned.

2.   The present document, intentionally short, is broken down
into two main parts: "Activities of ICIREPAT" and "Sugges-
tions of the Secretariat". The first part is subdivided into
two chapters: "The Shared Systems" and "The Standardization
Efforts".

ACTIVITIES OF ICIREPAT

3.   The objective of ICIREPAT is "to promote international
cooperation in the field of the storage and retrieval of
technical information needed in connection with the searching
and examination of applications for patents" (Organizational

Rules, Article 3(1)). Whenever this report speaks about "patents", also inventors' certificates and utility certificates are meant.

4. For achieving this objective, ICIREPAT acts in two ways, to a great extent interrelated and complementary to each other.

5. One way is through what is usually called the "shared systems"; the other is what may be called "standardization efforts."

Shared Systems

6. "Shared systems" consist of analyzing ("indexing") patent and other (mainly articles published in technical and scientific periodicals) documents by characterizing them through the concepts they contain ("conceptual indexing"), and transferring the agreed codes of such concepts onto punched cards. Once the cards are prepared, they may be used as input into a computer. Through questioning the computer or sorting out the relevant cards through other means, for example, mechanical sorters, documents dealing with a given question may be retrieved and brought together. This allows searchers and examiners to obtain quickly and simply the list of documents which are likely to be of relevance in the searching and examination of a given patent application. In ICIREPAT parlance, there are as many "systems" as there are technical fields which by the nature of the problems they cover and the number of the documents they contain constitute a unit of practical size both for agreeing on the concepts to be indexed and the methods of indexing and retrieving. Up to now, work on some 18 systems has been agreed upon. The number of documents each will contain varies greatly. Their average may be around 20,000 in each system. In response to any given question, the system should not output more than a few dozen documents.

7. The systems are called "shared" because the task of inputting (analyzing or indexing) is divided among the participating Offices. Any of the 20 member States and the International Patent Institute is expected to participate in this task, each analyzing the documents which originate with it. In actual fact, however, at the present time, analyzing is for the most part done in four places and covers mainly four sets of documents: the Munich, London and Washington Offices analyze their own documents, and the IIB analyzes those of the French Office. Copies of the coding sheets or other supporting media so prepared by one Office are communicated by that Office to the other three Offices and any other interested Office.

8. Each system requires careful and long preparation before
it becomes operational: its field is exactly delimited,
the concepts to be coded are agreed upon ("term lists"),
a manual on the procedures prepared, the effectiveness tested
at various stages, and other procedures followed to make sure
that the system will accurately respond to the questions and
that all participating Offices proceed in the same way.

9. Not all the technical fields are apt for treatment by
coding. Where the prompt understanding of the patent docu-
ments depends to a great extent on drawings, coding is
particularly difficult. Other fields are a limine discarded
because they are relatively inactive, i.e., few new documents
are published each year.

10. The Secretariat estimates that the number of patent
documents apt for the shared system program will be 1.2 million
by the end of 1970 and 2.4 million by 1980. (The total number
of patent documents will be 14 and 21 million, respectively,
by 1971 and 1980.)

11. Up to the present time, the four Offices have agreed on
the development of some 18 systems. Five of them may be
regarded as operational in the sense that they contain all
the documents they should or almost so. The others are in
various stages of development.

12. Up to the present time, some 100,000 documents have been
analyzed. Most of them are in the systems which are opera-
tional. On the basis of present commitments, the number of
documents to be analyzed in 1971 will amount to some 33,000.

13. Out of the total effort in the field of ICIREPAT made
by the participating Offices, perhaps 80% is devoted to the
shared systems program and its directly supporting activities;
this might amount in 1970 to some 36 man-years. About half
of the work of the ICIREPAT bodies (Technical Committees and
the Technical Coordination Committee) directly relates to the
shared systems program; this means about 20 days net spent
in international meetings in 1970, and at least half of the
travel costs of persons travelling on ICIREPAT business. As
far as the Secretariat (BIRPI) is concerned, about half of
its ICIREPAT work--approximately 3 man-years--is connected
with the shared systems.

Standardization Efforts

14. The expression "standardization efforts" is not a term
used in ICIREPAT parlance. It was coined for the purposes
of this report to characterize all ICIREPAT activities not
directly pertaining to the shared systems activity. They
comprise a number of subjects. The most active ones, at
least in 1969 and 1970, were those relating to the standardiza-
tion of patent documents, microforms, and computer hardware.

15.   Patent documents. Their standardization is desired
in several respects: size of paper, color of paper, elements
to be indicated on front page and gazette entries, identifica-
tion of such elements by numbers, letter codes for designating
countries, uniform expression of dates by numbers, and layout
(the place on the sheet of paper on which each element appears
on the front sheet). Whereas substantial agreement has been
achieved on the identification numbers and letters and the
method of dating, the important problems concerning size of
paper and layout still remain to be solved.

16.   Microforms. These are miniaturized forms of patent
documents, today mainly microfilms, inserted in a "window" of
a punched card ("aperture card") punched-coded with different
data allowing their retrieval by sorting machines.
The problems involved are numerous both as to the
film image (its size, quality, the order of the pictures in
it, the place of the window on the punched card, etc.) and
the punched card (what information should be coded, in what
places ("columns")). Good progress has been made in 1969 and
1970 and there is now agreement on most points. But the matter
requires to be kept under constant review in the light of
experience and the new technical possibilities.

17.   Computer compatibility. Most of the bigger Offices
will, in the next years, use computers for storing and
retrieving information concerning patent documents. The aim
here is to standardize the data carrier (magnetic tape), and
the layout of that data carrier, to enable Offices to receive
data from other Offices on magnetic tape. This data should
then be readily, i.e., without any change, searchable by
computer in the receiving Office. Progress, naturally, is
still slow, since few Offices have computers and experience is
rather new and limited. However, the matter is of utmost
importance for the economic exchange of data and is generally
regarded as a standardization task of the highest priority.

18. Out of the total effort in the field of ICIREPAT made by
the participating Offices, perhaps 20% is devoted to the
standardization efforts program; this might amount in 1970
to some 9 man-years. About half of the work of the ICIREPAT
bodies (Technical Committees and the Technical Coordination
Committee) relates to these efforts; this means about 20 days
net spent in international meetings in 1970, and almost half

of the travel costs of persons travelling on ICIREPAT
business. As far as the Secretariat (BIRPI) is concerned,
about half of its ICIREPAT work--approximately 3 man-years--
is connected with the standardization efforts program.

SUGGESTIONS OF THE SECRETARIAT

19. BIRPI has been closely associated with ICIREPAT work for
about two years only. Consequently, the Secretariat does not
have enough experience to be able to have definitive views on
what should be done in order to increase the usefulness of
ICIREPAT to the national Offices and the IIB. With the
hesitation and the humility called for by these circumstances,
the Secretariat nevertheless offers the following thoughts
for the consideration of those concerned with the future
program of ICIREPAT:

20.   Shared systems. It might be worthwhile trying--as a
pilot project--in a selected technical field (for example,
organic chemical compounds) to make an existing and in all
likelihood continuing codification and notation system,
developed outside any Office, the basis of a fully computerized
retrieval system. In other words, to merely try to adopt an
existing coding system as the coding system of ICIREPAT in this
particular field. This would, of course, require active
cooperation between a scientific association or a private
documentation pool and ICIREPAT.

21.   Patent documents. It would certainly be worthwhile to
give high priority to the efforts of standardizing the format
and layout of patent documents, so that not only the national
patent documents but also the international (PCT) applications
and the European patent documents would look as much alike as
possible. This holds also for the national gazettes and the
future PCT and European gazettes.

22.   Exchange of microforms. Finally, it appears to be highly
worthwhile to give priority to the organizing of efficient,
cheap and prompt exchange of microforms so that by the time
several Offices will issue their patent documents in this way,
or also in this way, all concerned are ready for their
processing and use.

23.   Organization of the Technical Committees. On another
level, namely that of international organization, the
Secretariat wishes to renew its suggestion that the number of
the Technical Committees be reduced in order to avoid the
danger of duplication of work among some of them and to allow
each to work in a broader context. One of the possibilities
would be to merge Technical Committee I with II, III with VI,
and IV with V. At the same time, the contribution of ad hoc

working groups for the efficient and urgent handling of
specific details could be encouraged.

/Annex B follows/

ANNEX B

ICIREPAT Program for 1971

Prepared by the Technical Coordination Committee and BIRPI

Shared Systems

1. Work should continue on the adopted shared use package programs with the objective of achieving the following by the end of 1971 (assuming that all of the systems have reached Stage 5 by the end of 1970):

   (a) Steroids - 100% complete

   (b) Organometallics - 100% complete

   (c) Electrolysis - substantially complete with a second subsystem in addition to electroplating (e.g. electrosynthesis/extraction) fully complete

   (d) Taps and Valves - 15,000 additional documents indexed in 1971

   (e) Insulated Cables and Lines - 40% complete

   (f) Color T.V. - substantially complete.

2. It is noted that the remaining systems in the existing package programs have reached Stage 6 or will reach Stage 6 by the end of 1970.

3. With respect to a new package program for shared indexing as may be adopted by TCC by December 1970, based upon recommendations submitted by TC.II, indexing by each of the Offices cooperating in each system of such package program should be done at a rate to be approved by the TCC during its December 1970 session.

4. With respect to a new package program for development as may be adopted by the TCC in December 1970 based upon recommendations submitted by TC.II, the originating Office for each system of such package program should take all reasonable steps to expedite advancement to Stage 5.

Microform Aperture Cards

5.   Procedures for the exchange of aperture cards should be
produced as soon as possible.

Technical Coordination Committee

6.   The TCC should study the number and the organization of
the TCs and their mandates, with a view to achieving a higher
degree of efficiency.

7.   The TCC should take such measures as are necessary to
ensure that the TCs do concentrate their efforts on the items
set out in this program and that progress on these items does
not suffer as a result of other less important tasks being
undertaken.

Technical Committees and ABCS

The TCs and the ABCS should concentrate their efforts on
the following:

8.   Technical Committee I

(a) Completion of the codifying work on tests to be
performed in Stages 2, 3 and 4;

(b) Review of the "Guiding Principles" and their
adaptation to computer - implemented systems;

(c) Continuance of the work on system performance,
search performance and indexing performance.

9.   Technical Committee II

(a) Continuance of the preferred fields study;

(b) Continuance of the field demarcation study;

(c) Compilation of a proposed package of fields for
which system-development should be started or expedited in
1972 and a proposed package of systems for indexing in 1972.

10.   Technical Committee III

(a) Study of the state of the art in advanced computer
techniques;

(b) Coordination of the work of those Offices able to
work in this field.

11. Technical Committee IV

    (a) Completion of work on exchange of aperture cards;

    (b) Study of the need for and the uses of other micro-forms.

12. Technical Committee V

    (a) Study of the problems arising from reproduction methods for publication of typewritten applications;

    (b) Production of recommendations on the layout of the first page of patent and like documents;

    (c) Investigation of computer type-setting and photo-setting processes.

13. Technical Committee VI

    (a) Production of recommendations on magnetic tape record layout;

    (b) Production of recommendations on updating indexing work sharing.

14. Advisory Board for Cooperative Systems

    Work on systems forming part of the packages agreed by the TCC and those for fields included in the TC.II development packages.

/End of Annex B and of document/