A Quick, Systematic Method for Worldwide Patent Awareness*

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The "World Patents Index Gazette", Chemical Section, is being used as the basis for a selective alerting program. This paper outlines the procedure used to prepare departmental, project, or work unit profiles, describes follow-up services offered, and discusses results of a questionnaire prepared to determine user reaction to the program.

Derwent Publications Ltd. introduced the "World Patents Index" (WPI) in January 1974. This weekly service, which is published as four Gazettes covering General, Electrical, Mechanical, and Chemical inventions, respectively, provides information on all patents opened to public inspection in 24 major countries.

The WPI Gazette, Chemical Section, contains six indexes:

(1) *Basic Patents by Patentee.* This index lists patents appearing in WPI for the *first* time alphabetically by the company, individual, or institution to whom the patent is assigned.

(2) *Basic Patents by Class.* This index lists patents appearing in WPI for the first time by order of their International Patent Classification(s).

(3) *Equivalent Patents by Patentee.* This index lists inventions, which were previously published in another country and reported by WPI, by patentee.

(4) *Equivalent Patents by Class.* This index lists inventions, which were previously published in another country and reported by WPI, by order of their International Patent Classification.

(5) *Concordance by Basic.* This index lists equivalent patents, each time they appear in the Gazette, with all other patents previously published for that invention under the Basic Patent Number.

(6) *Patent Number Index.* This index correlates patent numbers with Derwent accession data.

The first four indexes use a terse statement or expanded title heading to describe the patents' subject content. For example, U.S. Patent 3,894,089, which is entitled "Method for Reacting Organic Halides", is tersely stated this way: "Alkylation, Sulphonation and Like Reactions with Organic Halides Using Metal Carbonyl Complex as Catalyst".

"Central Patents Index" (CPI) is regarded as the abstract follow-up for the chemical section of "World Patents Index". For each basic specification, and for most equivalents, an abstract is published which summarizes the invention in 120 words or less. There are two versions of CPI: The Country Order and the Classified editions. In the "Country Order" bulletin all abstracts are gathered together in country of publication order, whereas in the classified bulletin all abstracts are grouped together by Derwent subject categories.

PATENTS AS AN INFORMATION SOURCE

Since many countries have revised their laws so that patent applications are published without examination just a few months after filing, the patent literature is sometimes more timely as a source of information on technological progress than conventional trade and scientific journals. Even countries requiring examination now publish inventions in considerably less time than previously. Patent watching on an international scale is thus essential to company, university, or government research and development groups wishing to (1) avoid duplicating work which has already been carried out elsewhere, (2) use the best information disclosed by others for their research planning, and (3) identify possible licensing opportunities.

STRUCTURING WPI FOR INTERNAL USE

Patent information could be selected from the "World Patents Index (WPI) Gazette" by subject (International Patent Classifications) or by inventor (patentee). Basic patents only are used in the alert service.

Work units were contacted by an information scientist and brought together to map out the research areas for which they required coverage. Each group was asked to indicate their preference for the subject or patentee index. They then used a sample WPI Gazette, Chemical Section, to guide their preparation of individual profiles. Their suggested coverages were cumulated into one profile for that interest group. That portion of the "World Patents Index Gazette" correlating with the group's interest was reproduced weekly for distribution to that work unit.

Work units were reassembled after 2–4 weeks to check the relevance of their departmental profile and to teach them use of the Central Patents Index alerting bulletins to obtain patent abstracts. "Country Order" CPI abstract bulletins were purchased for each library and reading room location. (Of twelve possible abstract bulletins, three were chosen to provide the necessary abstract coverage.) After review of the WPI and/or CPI bulletin, full patent specifications may be ordered through the Technical Information Services Department. Since the alerting program reports the first issue of patents only, an equivalents search option is also available. Requests for equivalents follow-up are handled by Technical Information Services personnel using the Weekly Concordance by Basic Indexes. An additional benefit offered the user by this program is complete patent specifications in a language which they read, rather than the language of the original specification if that language is unfamiliar.

EXPERIENCES

Forty-four unique profiles covering each company research and product interest have been drawn. Of this total, 19 are for chemical research and marketing activities and 25 are for food research activities. Key people within each group review patent citations in Derwent's terse statement form (see above example) profiled to their activity's interests. Individual users and group designates then consult the Country Order Alerting Bulletin for patent abstracts or order complete patent specifications for citations most germane to their research or product interest. Orders for original patent specifications from this program average about 30 each week during the past 16 weeks. This contrasts with an average of 30 each month before initiating this program. Ongoing searches for equivalents currently number 88.

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A survey of designated users, that is people who initially receive the departmental profile, revealed an average of three people see each departmental copy. Of 42 respondents to the survey, 36 spent 30 min or less each week reviewing their group profile. The number of "hits" varied. Chemical research personnel, for example, found an average of three pertinent patents each week per profile, while chemical marketing/commercial development and food research personnel averaged one per profile during that period. With 10 chemical research profiles, that group now sees approximately 30 patents pertinent to their activities each week. At that rate, this group of 75 professionals should see over 1500 patents of specific interest to their research annually.

USER REACTIONS

Of the 42 respondents to the survey, 83% found their current profile satisfactory. When asked the greatest benefits of the program, they voted this way:

14 Broader patent coverage
14 Less time spent on patent awareness
12 More timely coverage

Delay in obtaining foreign patents and the lack of translations for these patents are the principal irritants. A few respondents said that they thought the abstracts from the alerting bulletins did not contain sufficient information for their purposes, thus making purchase of the complete specification necessary, even when a foreign language was involved.

SUMMARY

This program was begun with chemical research personnel on February 4, 1975 and with chemical marketing and food research personnel on March 4, 1975. The survey was completed July 31, 1975.

The questionnaire response rates, 88% for chemical research personnel, 69% for food research personnel, and 100% for chemical marketing personnel, indicate high level interest in this program. User reactions via the questionnaire show successful achievement of the program's goal: to provide more timely coverage of a greater number of patents without an expenditure of considerable time.

Alternatives for improving access to foreign patent information are being studied. Among the possibilities being considered are (1) bringing foreign patent specifications in-house on microfilm, (2) subscribing to Derwent's Basic Abstract Journals, and (3) subscribing to Derwent's Basic Abstracts on Microfilm. The latter two subscriptions contain more detailed summaries of the patents than the corresponding alerting bulletins.

The International Metric System in American Petroleum Institute Research Project 44 and Thermodynamics Research Center Data Project Tables of Physical and Thermodynamic Data

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The physical and thermodynamic properties included in the American Petroleum Institute Research Project 44 and Thermodynamic Research Center Data Project Tables for hydrocarbons and other chemical substances are briefly reviewed. In Table I the property units used in the two sets of tables are compared with the corresponding SI units. The numerical factors needed to convert the present property values to those in SI units are also listed.

The International Metric System (in French, Systeme International d'Unites or abbreviated as SI) has been adopted by the world scientific and technical communities as the standard units for weights and measures for more than a decade.[1-4] In order to encourage scientists and engineers in the U.S. to adopt the SI units in their R&D work, the SI units to be used in the American Petroleum Institute Research Project 44 and the Thermodynamics Research Center Data Project Tables of physical and thermodynamic data have been compiled and are presented in Table I and recommended for use.

THE AMERICAN PETROLEUM INSTITUTE RESEARCH PROJECT 44

This is one of the four numerical data projects at the Thermodynamics Research Center (TRC), Texas A&M University.[5] For more than three decades, the APIRP 44 has served as a central agency for the American Petroleum Institute to provide the best available numerical values on physical and thermodynamic properties for all classes of hydrocarbons and a limited number of classes of sulfur and nitrogen derivatives of hydrocarbons present in petroleum. The official title of this loose-leaf format serial publication is "Selected Values of Properties of Hydrocarbons and Related Compounds", known as API 44 Tables. At the present, the primary set of API 44 Tables contains approximately 500,000 numerical values of properties of 3700 chemical compounds on 2900 valid sheets, grouped into seven volumes. These critically evaluated property tables have been used extensively by scientists and engineers in the U.S. and abroad for over 30 years.

THE THERMODYNAMICS RESEARCH CENTER DATA PROJECT

This numerical data project, formerly the Manufacturing Chemists Association Research Project,[6] is similar in format and style to the API 44 Tables, except this serial publication serves as a numerical data bank for the properties on all pure inorganic and organic substances outside of the hydrocarbon area. The numerical tables issued are known as "Selected Values of Properties of Chemical Compounds", or TRCDP Tables, and provide basic information for the chemical and