

Case Study Number: 19 **System Type:** Patent-granting System
Title: Canadian Automated Patents System (known as TechSource)
Institution or Agency: Government of Canada
Unit: Canadian Intellectual Property Office, Patent Branch

Case Study Conducted By:

Yvette Hackett, National Archives of Canada.
Cara Downey, National Archives of Canada.

Duration of Study: March 29, 2000-May 15, 2000 (Round 2 of Case Studies)

Functional Responsibilities of Respondent(s):

Control and manage data.
Supervise and operate technical functions.

Summary of System Information

Business Context: Since 1994, the Canadian Intellectual Property Office (CIPO) has been a Special Operating Agency (SOA) within Industry Canada. CIPO is responsible for the greater part of intellectual property in Canada including patents, trademarks, copyrights, industrial designs, and integrated circuit topographies. Within CIPO, the Information Branch participates in programs related to the dissemination of technical patent information, education and the publication of the Canadian Patent Office Record. The Patent Branch is responsible for activities under the Patent Act leading to the granting of patents in Canada (including processing applications, assessing the novelty of the requests, etc.). Its key functions are patent registration and examination, processing registration of assignments (ownership changes), collecting fees such as maintenance fees, and publishing patent-related information. The Patent Branch is also responsible for other activities such as the maintenance of registers and the administration of Canada's involvement with respect to the Patent Cooperation Treaty. Within this structure, the Canadian Automated Patents System (TechSource) supports internal examination and classification functions as well as public access to patent information. Furthermore, TechSource supports the patent administration functions by recording the status of a patent application through its life cycle, from entry through examination to public access and granted status and through the twenty-year life of the granted patent.

The Canadian Intellectual Property Office is subject to the following legislation:

- Patent Act, R.S. 1985, Chapter P-4 and Rules;
- Trademarks Act R.S. 1985, c. T-13;
- Copyright Act, R.S. 1985, c. C-42;
- Industrial Design Act, R.S. 1985, c. I-9;
- Integrated Circuit Topography Act, S.C. 10990, c. 37;
- Public Servants Invention Act, R.S. 1985, c. P-32.

Description:

Form, Content, and Requirements: A patent case file can contain a variety of documents, including:

- The **incoming formal application** and the **written petition** for patent (both are scanned into the system, and the originals are destroyed); data from these sources populate **tables** about the applicant (containing address, etc.). The entered incoming application generates **task lists**, which assign the various internal actions that are part of the patent granting process to the appropriate work areas.
- **Incoming correspondence** for thirty standard situations (completion fee, etc), which is received and scanned into the system (the original is then destroyed).
- **Outgoing correspondence** is automatically generated for eighty-three situations (payment of fees, granting of applications, etc.). Other outgoing custom correspondence is also generated.
- **Documentation tracking fee payment.**

- **Examiner reports** (entered).
- **Other reports** (generated).
- **Subject index links** to specific patent applications (created).
- **Links to tables of registered agents**.

The databases reside on the Host. The image databases reside on a hierarchy of storage devices including fast disk, bulk disk, CD-ROM in optical libraries and some shelf storage. The publication of a selected portion of the patent record in the *Patent Office Record* as "Canadian Patents Issued" means that the images associated with the record (except for Prior Art) are sent to 'Optical Shelf' storage. The remainder of the record remains in the system for easy/quick access. Other parts of the record can still be changed after this time, and the images can be superseded. Changes depend on the *Patent Act* and Regulations, and also on the decisions of the Canadian Intellectual Property Office Informatics Committee and on the collaborative decisions of the Patent Branch, Information Branch and Informatics Services Branch joint committee. Patent applications are unchangeable if abandoned.

Record retention periods are subject to relevant legislation such as the *Patent Act*, Access to Information Act, Privacy Act and the National Archives of Canada Act. Under National Archives of Canada Records Disposition Authority 97/002, CIPO is required to retain the Canadian Patent Granted Files for thirty years. The files are active for the life of the patent (twenty years from filing or claimed priority) and semi-active for an additional ten years. After this they are transferred for permanent retention to the National Archives of Canada. CIPO has a permanent need to access descriptions of previously granted patents as part of the examination process for new patent applications.

Enforced standards and other requirements (e.g., use of formulaic text, maximum field length) govern how the information is entered and presented.

The legal issuer of the patent record is the "Commissioner of Patents," who has the legal right to delegate his or her responsibility.

The TechSource system is owned by the Canadian Intellectual Property Office. Researchers can have access to a view of the system through Industry Canada's "Strategis" site. The electronic filing of patent applications is also provided through this site. Only employees authorized to perform certain tasks can add to the record; this is controlled through user accounts and passwords assigned through the Staff Structure facility of the system.

Characteristics and Appearance: Records are in English and French, but can include chemical and mathematical symbols; each record includes text and images. The images- various documents and diagrams (i.e. graphics)- are scanned into the TechSource system. Certain presentation features are enforced (correspondence lay-out, etc.). Letterhead is used for all outgoing correspondence, in place of a signature. A seal is used on the certificates declaring that a patent has been granted, and on true copies of records. Chronological date, name of addressee and receiver, name of writer, etc. are present in specific components of the case files.

Technical Information: The operating systems used by TECHSOURCE are OS/390 (mainframe) and OS/2 (workstation). The primary software components are SMS (System Managed Storage), OAM (Object Access Method – a component of Image/Plus), CICS (Transaction Manager), DB2 (Database Manager), Image/Plus (using DB2 as its database manager) and INQUIRE/Text (using VSAM as its database manager). The workstation uses OS/2 Communications Manager to connect to the mainframe to provide 3270 Host Emulation sessions, DDCS/2 to provide remote data access to the mainframe DB2 databases, and IWP/2 to display and store images to the host. TECHSOURCE is supported by the following hardware: IBM ES/9000 mainframe (9121 Model 732), VTAM supports about 300 locally attached user workstations through 4 X 3172 LAN attachments, Image/Plus is supported by

a LU6.2 VTAM connection allowing for Image communication with the mainframe system. Additional hardware and supporting software are all 'off the shelf' with no customization.

The image databases reside on a hierarchy of storage devices including fast DASD, slow DASD and Optical disk. The optical disk can be 'nearline', 'offline', or 'on the shelf'. Text is stored in VSAM databases residing on the mainframe and the data can be searched using the INQUIRE/Text software application. Access to all data residing on the mainframe system is controlled through RACF and through DB2 security assignment.

The data is backed up on a regular basis, i.e., partial backups occur daily with full backups occurring weekly. Two copies of the data are created with one backup stored onsite and the second sent offsite to vital records storage. The backups are cycled about once a month.

To view the images, the client uses IWP/2 on the workstation. This decodes the MO:DCA IOCA header information and displays the image in a readable format. Text is viewed through INQUIRE/Text (this data resides in VSAM databases). Although image data is stored on DB2 objects, it is compressed using G4 compression and is not readable directly from the DB2 tables.

Overview compiled by:
Francesca Marini

Date:
June 16, 2000

Reviewed by:
Cara Downey

Date:
July 17, 2000