THE USE OF ELECTRONIC DATA PROCESSING TO ASSIST IN THE DRAFTING OF LEGISLATION

Memorandum by
THE GOVERNMENT OF CANADA

Introduction

This paper will examine the application of data processing to the preparation of legislation from the initial draft through to the printed bill ready for introduction in Parliament.

2. When one speaks of the use of electronic data processing to assist in the drafting of legislation the range of equipment and software that may be employed is immense. It can include anything from the most simple and inexpensive word processing unit, a keyboard and some form of permanent storage media such as magnetic tapes, magnetic cards, etc., to a massive computer system, providing tremendous flexibility, requiring minimal manual intervention and naturally costing significantly more.

3. In general, it can be said that the more expensive the equipment and software involved the greater the degree of automation. In other words the more expensive the system, the less the draftsperson or his/her secretary need know about it in order to make effective use of it. This is obviously a desirable goal.

4. However, in choosing a system, many factors must be taken into account in addition to the funds that are available. These include:

(i) the future need of the office as well as the present needs so that equipment chosen for today can accommodate, or be developed to accommodate, the future needs;

(ii) the type of equipment already in use within the government or local private sector which could provide the type of service required or could provide backup in the event of equipment failure (a not entirely impossible eventuality);

(iii) the eventuality of local service facilities or the guarantee that a service representative can be on site within a reasonable period of time following equipment failure (e.g. 24 hours);

(iv) the kind of environment the equipment can be operated within, e.g. is it sensitive to heat, humidity, etc. and what are the limits within which it can operate. (Current electronic data processing equipment is far less sensitive to these factors than earlier equipment but, nevertheless, problems could arise in some jurisdiction.);

(v) can additional equipment be obtained within a reasonable time frame if expansion of the system becomes necessary, and so on.

5. Clearly it is beyond the scope of a paper of this kind to deal with all the systems and configurations that are possible. It will describe instead an operational system to illustrate the type of service that is possible and some of the difficulties encountered by draftspersons. The system described is being used by the Canadian Department of Justice. It would fall into the category of the more expensive type of system employing a large central computer shared by a number of users in addition to the Department of Justice. In addition, an Annex is attached which contains a brief description of the systems in operation in the other jurisdictions in Canada. For the most part these tend to be of the smaller and less expensive type.

Background

6. Lawyers drafting legislation for the Canadian Government have experimented with the use of computers in the drafting process for some 12 years. However it is only in the last four years that a system has been developed that meets the current needs of the drafters.

7. Drafting of federal government legislation in Canada is a centralised operation carried on in the Legislation Section of the Department of Justice. The Section consists of 16 lawyers, one-half of whom prepare the English version of bills and one-half of whom prepare the French version. While anglophone and francophone drafters are paired for this purpose, for linguistic reasons they rarely share the same secretary. At present, there is one secretary for every two drafters and the secretary is of the same language group as the drafters.

8. Each secretary has a terminal at her desk. This consists of a typewriter style keyboard and a television type screen on which appears whatever is typed on the keyboard. The terminal is connected by telephone lines to a large computer in the Government Printing Office that services both Parliament and the Government of Canada. Texts of draft bills typed at the terminals are stored on tape in the computer and the tape eventually used for the photocomposition of the bills to be introduced in Parliament.

Advantages of the computer in drafting

9. Time in which to create a legislative text and the accuracy of that text are absolute necessities to a drafter. Our experience is that the computer can offer both.

10. With respect to the accuracy of the text, once input into the computer and proofread the text need not be typed or proofread again. Prior to the introduction of the computer, our drafting process went through two phases. The first was the typing of drafts (with carbon copies) and the complete retyping of drafts, the clipping and pasting of them onto sheets of paper and then photocopying the resulting text. In each case proofreading was required and the final text set in type by the printer again had to be proofread. All of this cut into the drafter's creative time.

11. Putting the text of a Bill in the computer from its early states gives the drafter more time to work on it. Once in the computer system we use, a draft is available within minutes from either a typewriter-sized printer or on a high-speed printer. The latter, of which we have two, and which are generally used for lengthy texts, are centrally located whereas the former, of which we have four, are spread throughout the Section for easy access. The high-speed printer can also provide numerous copies of drafts for distribution to instructing officers. For shorter copies, it is more economical to photocopy the printed text for distribution.

12. The rapid return of successive drafts also saves the drafter's time. The text is printed with wide marginal areas on which the drafter can indicate his changes. The secretary, working from this draft, need only make the changes indicated and a new text is available quickly. As our computer is linked to the photocomposition unit that will print the bill for introduction in Parliament, the drafter can work to a later deadline. The Government Printing Office works around the clock and a bill, the text of which is completed by a drafter late in an evening, will be available early the next morning.

13. The computer we use also has the capacity to produce an index of every word used in the text of a bill with a reference to the provision in the bill where the word is used. In the case of larger bills, this is a great time saver to a drafter who must make changes throughout the text. As well, we have access to another computer that contains the full data base of all current statutes and regulations which can be searched for precedents or for references that will be affected by the bill being drafted.

Disadvantages of the computer drafting

14. The initial stages of introducing the computer in legislative drafting were prolonged and frustrating because of the incompatibility of suitable terminals with the printer's computer. Secondly, there was initial resistance by some secretaries to using the terminals and concern with loss of jobs. The latter was slowly overcome by the assurances that no one would lose a job because of the new technology and the former by not forcing too quickly the use of the terminals until the secretaries were comfortable with them. Courses of the use of the terminals were given half-days for one or two weeks and time allowed for the secretaries to practice on them. The value of the system is now acknowledged by the secretaries who are relieved of the tedious, repetitive work of retyping and proofreading successive drafts of the same material.

15. Secondly, from time to time, because of human error or a technical fault the text in the computer will mysteriously disappear. It is essential, therefore, to have a back-up system. It is our practice to have all current texts on the computer "captured" twice a day and stored separately on the computer. At most, only material input in one half day may need be reinputted if lost.

16. Thirdly, if the computer fails to function or if there is an interruption in the connecting telephone lines, almost all work on a bill comes to a standstill. Fortunately, this is an extremely rare occurrence.

17. Lastly, we experienced, in the initial stages of use of the systems, problems with respect to changes to the photocomposed text by the Printing Office. These were human problems, not ones caused by a computer. Our drafters are instructed to work with computer printouts until the draft legislation is satisfactory to both them and the instructing office. However, from time to time changes are required after a Bill had been printed. If the changes are not extensive, it is the practice of the printer to "strip" them in. This is done by hand by slicing out of the photocomposed print the portion to be changed and replacing it with the new text. The original data base should then be amended, but on occasion this step was overlooked and subsequent prints of the bill did not have the changes that had been made by hand. The problem arises rarely now.

Comments

18. With improved technology and lower costs of acquisition, the computer or word processor will in time be as common in drafting offices as the typewriter is now. In time, too, the photocomposition of legislative texts from computer tapes will replace typesetting and hot metal printing. However, the changeover to computer assisted drafting and printing should be undertaken with considerable caution. Particular care should be taken in the selection of machines to ensure that they are suitable to the needs and environment of the user, for the capability of the machines is often over-sold. There should be an assurance, as well, that the machines can be quickly serviced when they malfunction and there should be back-up system that ensures the drafting process is not solely dependent on the computer.

SURVEY OF THE USE OF AUTOMATION IN RELATION TO THE PREPARATION OF STATUTES AND REGULATIONS IN CANADA

ETUDE SUR L'AUTOMATISATION DANS LA PREPARATION DES LOIS ET DES REGLEMENTS AU CANADA

Alberta

Bill Processing

The first handwritten draft of a Bill is entered into the Government data centre's IBM ATAMS II system using a MAI video keyboard terminal and printouts are obtained in the drafting office using an IBM 3288 line printer located in the Legislative Counsel's Office. Further changes and additional proofs are obtained in the same manner.

Multiple copies are produced by the video terminal using IBM's time sharing option (TSO) monitor program to run the IBM 3800 laser printer which provides bold, italic and roman type faces.

In the near future the IBM 3288 line printer will be replaced by the IBM 6/670 laser printer which is a combination of an office copier, memory, data communication capabilities and laser printer.

When the Bill is ready to be typeset, the secretary/operator in the Legislative Counsel's Office issues the necessary instructions through the video terminal, and a photocomposition drive tape is produced at the Government data centre. It is picked up by a messenger from a commercial printer who carries out the phototypesetting, paste-up and offset printing. At the present time the photocomposition program does not perform page make-up which necessitates the paste-up referred to above and causes a certain amount of delay.

This problem will be resolved shortly by the use of a photocomposer capable of handling full page make-up or by a replacement to the photocomposition program.

Processing of Regulations

New and revised Regulations are processed through the system in the same way as Bills.

A study and analysis is now underway to interface all standalone word processors operating in Government departments to the Legislative Counsel Office System. This will eliminate duplicate keyboarding of Regulations.

In addition, Orders in Council will be processed on the automated system in the near future.

Computer Data Base of Statutes

A revision of the Statutes of Alberta is at present underway. As work proceeds on the revision, the revised documents are introduced into the computer system. These are, of course, supplemented by the new Bills as passed. However, at this stage a complete data base is not yet available.

Computer Data Base of Regulation

No plans are underway at present to produce a complete consolidation of the Regulations, although there are plans to revise and consolidate on a Regulation-by-Regulation basis. This would create a data base of Regulations ultimately. In addition, the Regulations being processed through the system would add to this base.

Computerized Information Retrieval of Statutes

No computer information retrieval service is used at present, but the question of an information retrieval program package is underway.

Computerized Information Retrieval of Regulations

An information retrieval service in regard to Regulations would probably be carried out in the same way as for the Statutes.

The card index for Orders in Council and Regulations is in the process of being converted to an automated system. The program is capable of extracting and sorting the data according to a choice of five topical parameters.

British Columbia

Bill Processing

All Bills are prepared using five Micom 2000 mini-computer word processors. The output from a Qume printer is then photoreduced and offset printed by Queen's Printer. The Micom floppy disc is encoded by Legislative Counsel's staff with typographic commands which can be fed directly into a photocomposition device at the Queen's Printer. This eliminates the need for operator involvement at the Queen's Printer except for actually running the photocomposition machine. Photocomposition is not used for Bills but is used for the bound and loose-leaf Statutes.

Processing of Regulations

Micom equipment is also used to prepare Regulations.

Computer Data Base of Statutes

A computer data base of Statutes is maintained in the QL Systems Limited computer at Kingston, and is updated by a member of the Legislative Counsel's staff periodically during the year using the IBM ATS service provided by QL Systems Limited. A Micom is used to communicate with and update the data base at Kingston.

Computer Data Base of Regulations

A five year program to re-enact and consolidate the Regulations is at present underway. When the number of Regulations consolidated is sufficient to justify the cost, a computer data base of Regulations will be developed.

Computerized Information Retrieval of Statutes

The Statutes are available through the QUIC/LAW service provided by QL Systems Limited, and are used extensively by the Legislative Counsel's office, the Law Reform Commission of British Columbia, and Dr. Gilbert Kennedy who is preparing the next revision of the British Columbia Statutes.

Computerized Information Retrieval of Regulations

See above.

Comment

The Legislative Counsel's office comment that by using the computerised retrieval system, they are able to prepare consequential amendments to Bills in a much more detailed form, thus making the Statutes more accurate.

Manitoba

Bill Processing

No automated procedures are used at present in relation to the preparation of Bills, but the matter is under consideration.

Processing of Regulations

There are no plans at present to automate the preparation of Regulations.

Computer Data Base of Statutes

The Manitoba Statutes were converted into machine-readable form during the course of the revision of the Statutes in 1970. The data base is updated at the end of each Session of the Legislature, and is integrated with the loose-leaf service for the Continuing Consolidation of the Statutes of Manitoba.

Computer Data Base of Regulations

A computer data base of Regulations was created in 1972 with the revision of the Regulations, but has not been kept up-to-date. It is hoped to bring this data base up to date, but funds are not available at present.

Computerized Information Retrieval of Statutes

In 1970, when the data base of Statutes was created, a batch retrieval system was developed to search for the occurrence of words, combinations of words and phrases. In addition, programs have been developed which generate word frequency lists showing the number of times a word appears in the Statute, word concordances giving the word, chapter and section it appears in, and KWIC (Key word in Context) giving an alphabetical list of all key words with the context before and after, the chapter number and section number. A KWIC of all of the Manitoba Statutes is prepared periodically using COM (Computer Output Microfilm) and is available for research purposes by people inside and outside the Government. The KWIC is used extensively by the Legislative Counsel's office. The KWIC is available in the Provincial library.

Computerized Information Retrieval of Regulations

The programs available in regard to Statutes could be used in regard to the Regulation data base once it has been updated.

New Brunswick

Bill Processing

The first handwritten draft of a Bill is inputted onto an AES PLUS diskette. Printouts are obtained by using a Qume printer which is connected to two AES

PLUS word processing machines. Amendments or corrections to the original draft can be done relatively quickly on the diskette. This process is also a time saver as far as proofreading is concerned. When a draft Bill has been proofread once, subsequent changes or corrections can be checked by the draftsperson without necessitating a completely new proofreading of the Bill.

Bills stored on AES PLUS diskettes are now transmitted directly to the Compugraphic photo composition equipment at the Queen's Printer's Office by way of Datapac Limited, a telephone line adapted for computer usage. The adaption of the AES equipment in the legislative drafting office to the Compugraphic photo composition equipment at the Queen's Printers Office is made possible by a machine converter marketed by Shaffstall Limited. This process has eliminated the need for a duplicate typeset at the Queen's Printer's Office.

Computerized Data Base of Statutes

A data base of the English version of the Revised Statutes of New Brunswick is located at QL Systems Limited in Kingston, Ontario and is updated periodically by the staff of the office of the Attorney-General. The data base software does not at present support regular updates. However, upgrading of the software is underway in order to allow the regular updating of the data in the near future.

The data base of the English version of the Revised Statutes of New Brunswick is fully operational and has been updated up to 10 March 1981. A major update of this data base for the purpose of incorporating the 1981 legislation is expected to be completed by December 1981.

Work has begun on the building of a data base of the French version of the Revised Statutes of New Brunswick.

The updating of the English data base and the building of a French data base is being done by using the IBM ATS service provided by QL Systems Limited. An AES PLUS with a communication option is being used as a terminal for communication with QL Systems Limited and with the Queens Printer.

Computerized Data Base of Regulations

A consolidation and translation of all New Brunswick Regulations is under way. The AES PLUS is being used for this project and once the consolidation has been completed, the data base of the Regulations will be built.

Computerization Information Retrieval of Statutes

The English version of the Statutes of New Brunswick are available through the QUIC/LAW service provided by QL Systems Limited in Kingston, Ontario.

Newfoundland and Labrador

Bill Processing

The Office of the Legislative Counsel has an IBM Office System 6/450 information processor. The system includes a display/operator's station, and an inkjet printer. This system is being used to produce camera-ready copy for offset printing, thereby bypassing the composition stage at the printers. The system is also being used in the printing of Acts.

Processing of Regulations

No plans are at present under way to automate the preparation of Regulations. The Office is, however, the Registry of subordinate Legislation and maintains its index in the information processor.

Computer Data Base of Statutes

The Legislative Counsel's office is using the IBM System 6/450 to store Statutes for revision and consolidation. The revision and consolidation will be printed in the same manner as the Bills and Annual Statutes. The discs used in the system are readable by computer.

Computer Data Base of Regulations

There are no plans at present to develop a data base of Regulations.

Computerized Information Retrieval of Statutes

Although consideration is being given to information retrieval, no decision has as yet been taken in this regard.

Nova Scotia

Bill Processing

All Bills since the 1978-79 session were prepared using four AES 100 terminals and printed on the low-speed printer attached to the terminal. Photocopying was employed to produce the multiple copies required for the Legislature.

Chapter separates are prepared in the same way, but the annual Statutes are produced by photocomposition through an interface between the AES system and the A-M photocomposition equipment which is used. At the present time, a certain degree of manual intervention is required before the AES data can be processed by the photocomposition unit, and the photocomposition output is in gallery form. It is hoped that a page makeup procedure will be developed in the near future, and the manual intervention reduced.

Processing of Regulations

Regulations are not handled by the Legislative Counsel's Office.

Computer Data Base of Statutes

A computer data base of Statutes is being generated through the AES system and stored on floppy discs. At the present time approximately two-thirds of the data conversion has been accomplished, and this will be used in the photocomposition of a consolidation of the Statutes in loose-leaf form early in 1979.

It is planned that this data base will be updated periodically and used for the next revision of the Statutes.

Computer Data Base of Regulations

There are no plans to develop a computer data base of Regulations at this time.

Computerized Information Retrieval of Statutes

This is at present under revision but no decision has as yet been taken in regard to the development or use of any particular information retrieval system.

Computerized Information Retrieval of Regulations

No regulation data base is available.

Ontario

Bill Processing

The Legislative Counsel's Office uses ATMS text editing through a government computer in the preparation of Bills. The government printer uses photo-composition equipment which should result in machine-readable copies of new legislation becoming available. A new system for text editing, integrated with printing, is under review.

Processing of Regulations

The same situation exists in the preparation and printing of Regulations as for Bills.

Computer Data Base of Statutes

The Statutes are maintained in a consolidated (camera-ready) copy form for printing purposes, and a gradual conversion is underway to machine-readable versions. Such a data base will be completed before the 1990 revision. A program is being launched to translate selected Statutes into French using word-processing equipment in the office.

Computer Data Base of Regulations

The same situation exists for Regulations as for Statutes.

Computerized Information Retrieval of Statutes and Regulations

There is no program in the government for this purpose but the matter is under review.

Prince Edward Island

Bill Processing

The Legislative Counsel's Office uses an IBM Mag-Card System for the drafting of Bills.

Processing of Regulations

EDP is not used in the preparation of Regulations and no plans are being considered at present.

Computer Data Base of Statutes

Revisions to the loose-leaf edition of the Revised Statutes of Prince Edwards Island are produced by Alphatext in Ottawa who provide photocomposed copy to the Queen's Printer. The computer base is updated annually by Alphatext.

Computerized Information Retrieval of Statutes

At present no retrieval system is used, but consideration is being given to various options.

Quebec

Traitement des projets de loi

Le système de traitement de mots (AES C-20) sert actuellement a la preparation des projets de loi confies a la Direction générale des Affaires légisaltives. On envisage toutefois de mettre au point un système plus complet de traitment des projets de loi.

Traitement des règlements

Actuellement, les règlements ne font pas l'objet d'un traitement electronique.

Base de données informatisees des lois

Une base de données informatisee des lois à servi a la photocomposition des Lois refondues du Québec de 1977, de même qu'à celle de leurs mises à jour subsequentes.

Base de données informatisees des règlements

La saisie des règlements en voie de refonte est effectuée actuellement par une firme privée qui fournira à la Commission de refonte les prêts à photographier et un ruban magnetique qui pourra être converti dans un format similaire à celui des Lois refondues. Par la suite, la Commission pourra mettre elle-même cette banque de données a jour à même ses propres terminaux de saisie.

Repérage d'informations par ordinateur en ce qui a trait aux lois et règlements

A l'heure actuelle, la Commission de refonte des lois utilise l'ordinateur pour effectuer des recherches dans la banque des lois refondues du Quebec. Ces recherches sont effectuees pour des fins internes. Cependant, un nouveau systeme de repérage est prévu pour l'an prochain; le ministere envisage de conclure avec la firme QL Systems Limited une entente aux fins d'en offrir le service QUIC/LAW a differents usagers relativement aux Lois refondues et, eventuellement, aux Reglements refondus.

Saskatchewan

Bill Processing

The Legislative Counsel's Office prepares Bills using Mag Card typewriters an dinserts formatting codes for printing. Galleys are prepared by the Office Service Agency which are pasted up by the Saskatchewan Government Printing Company and printed in the usual manner. Late in 1981 all Bills and Regulations will be prepared on Wang word processors and typeset in the Legislative Counsel's Office. A direct link with the printing company which has the same equipment will facilitate printing of Bills, separate chapters, bound annual volumes, loose-leaf Statutes and Regulations both in the Gazette and in loose-leaf form.

Processing Regulations

Regulations are prepared in the same manner as Bills. Saskatchewan is currently involved in a Regulation re-enactment program which will result in a computer data base of Regulations.

Computer Data Base of Statutes

A project to convert the loose-leaf Statutes into a machine readable form is presently under way. The printed page will be "read" by an optical scanner and the data will be stored in the QL computer in Kingston.

Northwest Territories

Processing of Ordinances

Handwritten drafts of Ordinances are keyboarded into Micom 2000. Printouts are forwarded to the Territorial Printer for reproduction by offset printing (quick-printing: paper plates) for the Legislative Assembly. Amendments during council sessions usually travel the same route.

Processing of Regulations

Regulations are processed in a manner similar to Ordinances. Following keyboarding and signature, a hand copy is forwarded to the Territorial Printer for inclusion in the Territorial Gazette. The Gazette is produced by offset printing means (metal plate).

Computer Data Base of Ordinances and Regulations

Ordinances are collected and reproduced in yearly volumes. A computer tape is made at the time of printing but not consolidated data base is maintained. Regulations have been consolidated to 31 December 1981 and will be available in a bound volume shortly. A computer tape will be prepared but there are no plans to maintain a consolidated data base of Regulations. Maintaining an up-to-date data base on Micom diskettes of both Ordinances and Regulations is under consideration.

Computerized Information Retrieval of Ordinances and Regulations

Neither the Ordinances nor the Regulations are available at present through a computerized information retrieval service.

Comments

The Northwest Territories plans to convert to a continuing consolidated loose-leaf verison of Ordinances and Regulations within the next few years. The issue of maintaining a computerized data base will have to be reviewed when this system is brought in.

Yukon

Bill Processing

A contract draftsman is currently employed in the vacant draftsman's position. He drafts and prepares Bills using an AES PLUS and incorporates any changes occurring during drafting or in the Cabinet Legislation Committee process. When the draft is ready for introduction the Bill is transferred to an IBM Mag-Card II typewriter and hard copy is prepared by offset printing for circulation. Changes occurring during debate are dealt with on the Mag-Card II.

Processing of Regulations

Regulations are prepared in-house using the Mag-Card II typewriter.

Computer Data Base of Ordinances and Regulations

A computer data base of Ordinances is maintained by Supply and Services (Canada) and is used to update tne loose-leaf consolidation of the Ordinances.

Computerized Information Retrieval of Ordinances and Regulations

No information retrieval services are employed at present.

Comments

Currently, the consolidation of Yukon Statutes since 1971 has been by means of a loose-leaf system similar to that of the province of Manitoba which is annually updated. The revised Ordinances of 1971 were printed in a hard cover and no subsequent hard cover books have been produced.

The data base of Ordinances maintained by Supply and Services (Canada) has not proven to be actually capable for use for the purpose of enabling the annual revisions to be performed solely by inserting new sections, sub-sections, etc. The reprinting has produced numerous typographical errors which have required detailed proofreading subsequent to printing. An examination was conducted to ascertain where the errors had occurred. It was found that almost every new Ordinance handled since the revision of 1971 contained some errors and in some cases the errors were gross and widespread. A further examination showed that through an error in Supply and Service the final corrected version of the 1971 revision was printed without incorporating the numerous typographical errors into the parent data base. Since this was unknown in the Yukon the method for producing updates of the revision copy was to transmit for printing only the particular sections which had been changed by way of amendment or repeal. This copy was incorporated into the data base directly with the result that the reprinted newly revised Ordinance picked up all of the original errors which had never been corrected in 1971. The subsequent printing then put into force many pages of unproofread 1971 copy and eliminated the corrected 1971 copy. The error could have been foreseen earlier if the whole of each Ordinance upon its new production was proof-read. Unfortunately when one section was changed in a 200 section Ordinance only that section was proofread.

Another complete revision has been undertaken and our current loose-leaf edition is now up-to-date with effect from December 1979.

Tentative Future Plans

The Yukon Government is in the process of purchasing a new computer which will incorporate word processing capabilities. An endeavour will be made to ensure compatibility of the transmission equipment with either the QL Systems data base of the Federal Department of Justice or Supply Services (Canada) as printers. Early decisions are not expected.

Canada

Bill Processing

All Bills are prepared using the ATS system run on the Canadian Government Printing Bureau Computer which also prints them by computerized photocomposition. The Department of Justice employes 15 Vucom II terminals through which all Bills are now input, backup input being provided by the Printing Bureau. The bulk of the terminals are operated by draftspersons' secretaries with a small central data processing unit.

Processing of Regulations

All Regulations are prepared using the ATS system run on the Canadian Government Printing Bureau computer which also prints them by computerised photocomposition. It is planned that all input will soon be done on 7 Vucom II terminals located in the Department of Justice, as Regulations are approved.

Computer Data Base of Statutes

A computer data base of Federal Statutes was created as a part of the Revised Statutes in 1970. The output from the Bill processing system is used to keep the base up to date employing equipment located in the Department of Justice and the ATS system of the Canadian Government Printing Bureau.

Computer Data Base of Regulations

A data base of Regulations was created by the Department of Justice as a part of the process of consolidating the Federal Statutory Orders and Regulations. The data base is updated using the machine readable data generated through the processing of Regulations.

Computerized Information Retrieval of Statutes

The Federal Statutes are available through the QUIC/LAW system operated by QL Systems Limited.

Computerized Information Retrieval of Regulations

The Federal Regulations are available through the QUIC/LAW system operated by QL Systems Limited.

Stephen J. Skelly

November 1981