ADP in Finnish Judicial Administration

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1. Reports of the Commission

The Finnish Commission for ADP in Judicial Administration was appointed in September 1971. The Under-Secretary of State of the Ministry of Justice Mr. Kai Korte was elected chairman and the members, secretaries and experts included representatives of the Ministry of Justice, Police Department of the Ministry of the Interior, Ministry of Finance, the State Computer Center, the Supreme Administrative Court, the Court of Appeal of Helsinki and the Statistics Center.

The First Report of the Commission which was published and submitted in May-June 1973 included proposals for three main projects which were elaborated in the Report in varying detail: 1) the Information System of Legal Materials, 2) the Information System of Court Procedure and Execution of Judgements and 3) the Information System of Police Administration. These main projects were further divided into sub-systems as shown in the enclosed chart. A connection to the Information System of Real Estate which is being developed elsewhere in the administration was envisaged.

The second and final Report was published and submitted in February 1974. It included a chapter on the organization of the development work. It also covered the topic of training of judges, administrators, draftsmen, parliamentarians, printers, prosecutors and policemen. The second Report even included a chapter on the bases for decision-making on techniques where the Commission, after consultation with the State Computer Center,
suggested that consideration should be given, before final decisions on computers and equipment were made, to existing ADP-capacity of the state administration, to decentralized but coordinated solutions, to batch-processing where practicable and to further planning and localized experiments. The extensive experiments carried on in 1972-73 in Sweden and Finland were also reported.

2. Establishment of the Hameenlinna ADP-Development Center

Establishment of the Hameenlinna ADP-Development Center (Name: Tietoyärjestelmän kehittämisysäikkö, Address: Raatihuoneenkatu 18 B, SF-13100 Hameenlinna 10, Finland, Phone: 917/69551) in March 1974 was a direct result of the work of the Commission. The Ministry of Justice and the Ministry of the Interior signed an agreement on the subject.

The personnel of the Center is partly people from the Commission. The first Director Mr. Tapani Taskinen who was secretary general of the Commission and who has participated in the work of the Strasbourg Committees and in the various study visits has gone over to law practice. The new Director Mr. Juhani Ahla is also a lawyer and one of the former directors of the computerized Population Register Centre. The Administration Manager, Mr. Markku Lindberg and the Systems Manager, Mrs. Helena Saari worked actively in the Commission. The Center has a permanent staff of only about 30 full-time people as the intention is to rely heavily on project groups formed on a temporary basis of experts both from within and outside the two ministries.

The duties of the Center are to continue the detailed planning of the priority topics of the three main projects and to carry out the training program envisaged by the Commission.

3. The Information System for Legal Materials

If we then look more closely at the various systems we can see that the Information System of Legal Materials consists of five sub-systems.

The Judicial Precedents System appears in two stages of development because the proposal and outline of the Commission covered both of the two Supreme Courts, the Supreme Court proper and the Supreme Administrative Court, the Courts of Appeal and several other courts. Of these the System of the Supreme Administrative Court is already in operation.

The project of the Supreme Administrative Court was started in the late 1960’s. It was taken in use in 1972 and has been changed from batch mode to terminal application in 1973. The system was created to expedite
the registering and handling of abstracts of the court’s decisions which have great practical importance for a large number of parties for instance in taxation and in building construction. The materials include about 4,600 decisions. The court is using the IBM computers of the Finnish State Computer Center (System 370 Model 145 with typewriter and display terminals). The program package used is the IMDOC-T developed by Industri Matematik Ab, of Stockholm, Sweden. The working methods are information retrieval on full text of abstract and on systematic numerical codes and certain other formatted information such as dates, case numbers and extra key-words.

We then turn to the System of Legal Texts which is intended to cover Legislation and Treaties.

Keeping track of new acts of Parliament and decisions of the Government and of different Ministries which in the official bilingual publication in Finland amount to about 1,000 documents and 2,000 pages annually is increasingly difficult. Also the updating and publication of the semi-official bilingual lawbooks called Suomen Laki – Finlands Lag which means Laws of Finland is a big task. Volume I of the Finnish version covers the essential parts of civil law, criminal law and law of procedure, volume II of Finnish version public law and the Swedish version a combination of both. Each of the three volumes are about 2,000 pages and include also a number of treaties. The Finnish versions are published bi-annually and the Swedish version about every five years. Therefore the Commission has proposed and outlined a System of Legal Texts where the basic minimum material would be the texts of the law books as this material probably soon will be available on magnetic tape as a by-product of the lawbooks. This material could then be completed with materials from lawdrafting, Parliament, provincial and municipal regulations, treaties etc.

The proposals of the Commission on this topic were on purpose very general both as far as the material to be included and as far as the equipment and programs are concerned because in the opinion of the Commission further studies and detailed planning were necessary particularly on this subject before decisions were made. The representatives of the Commission had tried, however, to follow the development in this field primarily in Europe and in the United States and Canada and they had been able to participate in a number of very useful study visits. Also some interesting experiments on legislation and treaties were carried out.

Experiments in Stockholm were carried out in 1972-1973, partly under the expert advice of Mr. Ingvar Gullnäs and Mr. Börje Alpsten at the Swedish Ministry of Justice, partly at a governmental printing office and partly at a research institute by the name of KVAL (meaning Research Group for Quantitative Linguistics) which is directed by Dr. Hans Karlgren and connected with the University of Stockholm. The test material
consisted of some 600,000 characters of Finnish legal texts and included a draft bill, texts of civil law, taxation law and the entire Penal Code. Also about 200 cases of the Supreme Administrative Court, some Swedish material and the Council of Europe treaties in English were available. Various ways of input were tried as well as drafting using ATS, information retrieval with the IMDOC-T program package, phototypesetting and printing. Also experiments were made on the production of different types of KWOC registers to be used i.e. for checking the completeness and consistency of laws.

In Helsinki contacts have been made with experts from the Institute of Technology working under Professor Hans Andersin on text editing and printing systems. They have good results in hyphenation programs claiming 99.9% accuracy in some of their tests. Meetings have been held also with experts from the University of Helsinki computer programs for linguistic studies. These experts carry on research not only in the Finnish and Swedish languages but also in many others for example in Assyrian and Samoyedic. They have told that extensive computerized reverse alphabetic dictionaries and grammatical programs of the Finnish language are available.

In 1974 the IBM of Finland arranged the opportunity to experiment with the STAIRS/AQUARIUS program package using several hundred cases of the Supreme Administrative Court and the Finnish Penal Code. This opportunity was very much appreciated as it provided interesting comparison material with regard to previous experiments.

Typical properties of the Finnish language in this context are perhaps the fifteen case forms of nouns indicated by suffixes, the variations in the root of the word, the great number of verb forms, and the extensive use of compound words. On the other hand the orthography is very clear and the problem of homonyms (words that look alike but mean different things) is not very grave. So far good results have been obtained for instance with masking and segmentation of keywords, and some interesting experience with synonyms and homonyms as well as with hyphenation and grammatical programs. Also some aspects of the bilingual legislation and translation have been touched on. Naturally much further work needs to be done but at least awareness of some of the problems has been created as well as knowledge of some sources of further expert advice.

The Technical System for Legislative Work was proposed by the Commission for drafting, editing and printing of new legislation. The project should cover the Ministries, Parliament and the State Printing Center. The Commission had made some experiments, even in this field. On the other hand, the State Printing Center had also studied the matter at length and acquired as a first phase of computerization a PDP mini-computer and phototypesetting equipment. Their computerization plans
are progressing and their wish is to obtain material to be printed from the Ministries and other customers if possible in the form of magnetic tapes. Further studies in this sector are under way in intraministerial and interministerial working groups.

*The Committee Information System* would cover the present manual Committee Register kept by the Organization Department of the Ministry of Finance and supply information on existing committees, their mandates, members, schedules, reports etc.

*The Legal Literature System* was envisaged as a complementary system to help draftsmen, judges, parliamentarians, scholars, prosecutors and others to provide themselves with information on literature. This system is expected to be coordinated with the planned library programs such as the LIBRIS-DOC which is being developed in cooperation with NORD-DOK, the Nordic Coordinating Body for Scientific Information and Documentation.

4. **THE INFORMATION SYSTEM OF COURT PROCEDURE AND EXECUTION OF JUDGEMENTS**

With the help of this system routine information involved in the internal house-keeping of the courts will be handled and information will be provided for the purpose of the development of the judicial system.

According to the proposal of the Commission the following subprojects will belong to the information system:

- a court calendar-and-docket (diary) system,
- a system comprising the decisions of the courts,
- fines and a 'payments-due' system,
- a penal sentence system,
- a system for 'marital-pact' matters,
- a system for guardianship matters.

Later on a system for prosecutors has been added to the list.

*The Court Calendar and Docket System* (Diary) is based on the card files of the courts from which necessary statistical data is sent to a centralized processing. The purpose is to improve the records of the courts and the control of cases passing through different stages of handling and help the handling of information necessary for the development of the courts. Also different types of indexes on legal issues and cases pending are envisaged for the purpose of increasing the capacity of the courts. The system is at the stage of general planning. The forms will be taken into use in 1977. As a whole the system is expected to be in operation at the beginning of 1978.

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The Court Decisions System will include the contents of the courts’ decisions in a compact form and supply information further to other authorities on magnetic tape or on forms. The most important authorities using this information are the ones executing fines and imprisonment sentences. The purpose of the system is to rationalize the entire procedure of solving conflicts through the court system and execution, improve resource allocation in the courts and help the collection of planning and feed-back information. For the litigants the system means increased clarity of the decision. The forms were taken into use from the beginning of July 1976 and the first subsystem will be taken into use from the beginning of 1977.

The Fines Execution System will be used for the comparison of information from the Court Decisions System to list fines and comparable payments due and for the sending out of demands of payment. The purpose of the system is to assist in and expedite the collecting of payments in particular in those cases which are paid without distraint and which amount to about 75 per cent of fines and comparable payments. The system will be taken into use at the beginning of 1977 simultaneously with the Court Decisions System.

5. The Information System of Police Administration

By the Information System of Police Administration is meant that part of the information system of judicial administration in which the informational material needed for the activity of the police is handled. The system is linked primarily to the following police functions: the maintenance and direction of functioning, crime investigation, the general supervision of order, licence administration and other functions which are not specifically police functions.

It is proposed that three system-groups would be developed:

— registration system of relevant events or incidents,
— police register systems or systems for crime investigation,
— alarm system.

The Register System for Events is planned to include multidimensional information on events requiring police action such as crimes, accidents, public meetings etc. This information is also fed, together with roughly thirty variables indicating changes in the structure of the society in each police district, into a statistical forecasting model which is expected to help in the estimation of crime rates of near future in each district. The allocation of police resources can then be derived from the registered data of events, the forecasts and the workload-data which is also available.

New forms required by the system will be taken into use in 1976-78. The registering of events as far as crimes are concerned will be started in
1978 which also means that part of the statistical work will be computerized.

The Police Register Systems or Crime Investigation Systems consist of Finger Prints, Modus Operandi, Photograph, Property and Name Register Systems. The Name Register System is a sort of index for the whole system. The purpose of the system is to provide a tool in investigating professional and recidivist criminality. Information on new crimes is compared with the registers with the help of computers in order to recognize the criminal. Further inquiries into the registers can be made through terminals. The detailed planning phase and transfer on information is going on and the system is expected to be operational in 1978-79. Another register closely connected with this system is the Gun Permit Register System which is expected to be ready shortly together with a new draft law on this subject.

In the Alarm Systems there will be created a network for the transmission of information which will use the datahandling equipment as an aid in speeding up the transmission of information among police units.

The Systems for Motor Vehicles, Missing Motor Vehicles, Wanted Persons and Driving Licences are operated in cooperation with the Motor Vehicles Register of the Ministry of Transportation and the Central Register of Population of the Ministry of the Interior.

6. Regarding other areas

In addition to the above, the Commission was of the view that the development of data-processing regarding real estate is a task of urgent importance, and the judicial administration should concern itself with it. The Commission also gave an opinion on a Report Concerning an Information System of Real Estate.

In the opinion of the Commission the development of registration and information service regarding associations and foundations should be carried out in the course of developing the registering of information regarding companies and other juridical persons. A computer-based trademark register systems is being installed at present.

The Commission did not concern itself with the development of the processing of information on financial administration and the processing of information regarding civil servants since the Ministry of Finance has initiated projects extending over the different fields of administration dealing with this, and both the judicial administration and the police have been included in these projects from the beginning.
7. Equipment

The investigation carried out by the Commission had indicated that in the near future it would pay for the judicial and police administration to shift over to extensive use of automatic data processing. Because of the extent of the functions and the high priority required for some of them and because of the security measures required it was clear that the judicial administration and the police administration should procure computers of their own and other appropriate equipment. Because somewhat unsatisfactory results have been obtained so far from the use of remote processing with the big computers, the plans have been changed in favor of largest possible use of batch processing with the computers of the State Computer Centre. In those applications where online processing is unavoidable, a mini-computer for each application with a minimum number of terminals will be preferred. In this way maximum reliability is expected and the low costs of mini-computers will perhaps also make reserve equipment feasible.
INFORMATION SYSTEM FOR JUDICIAL ADMINISTRATION IN FINLAND

Information System of Legal Materials

Information System of Court Procedure and Execution of Judgements

Information System of Police Administration

Information System of Real Estate

PROPOSED AND OUTLINED:
- JUDICIAL PRECEDENTS SYSTEM
- SYSTEM OF LEGAL TEXTS (LEGISLATION AND TREATIES)
- TECHNICAL SYSTEM FOR LEGISLATIVE WORK
- COMMITTEE INFORMATION SYSTEM
- LEGAL LITERATURE SYSTEM

PROPOSED AND OUTLINED:
- COURT CALENDAR AND DOCKET SYSTEM
- COURT DECISIONS SYSTEM
- FINES EXECUTION SYSTEM
- PENAL SENTENCE SYSTEM
- MARITAL PACT SYSTEM
- GUARDIANSHIP SYSTEM

UNDER DETAILED PLANNING:
- COURT CALENDAR AND DOCKET SYSTEM
- COURT DECISIONS SYSTEM
- FINES EXECUTION SYSTEM

IN OPERATION:
- JUDICIAL PRECEDENTS SYSTEM
  (SUPREME ADMINISTRATIVE COURT)

- COURT CALENDAR AND DOCKET SYSTEM
- COURT DECISIONS SYSTEM
- FINES EXECUTION SYSTEM

- REGISTER SYSTEM FOR EVENTS
- POLICE REGISTER SYSTEMS
- ALARM SYSTEMS

- REGISTER SYSTEM FOR EVENTS
- POLICE REGISTER SYSTEMS

IN OPERATION:
- SYSTEM FOR MOTOR VEHICLES
- SYSTEM FOR MISSING MOTOR VEHICLES
- SYSTEM FOR WANTED PERSONS
- SYSTEM FOR DRIVING LICENCES