

GEPRO - a computerised system for controlling the production of translations in the European Parliament

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In order to function effectively all the European Parliament's bodies need to be supplied with documents in all nine Community languages. Every report in Parliament is the result of a series of preparatory acts all of which produce written output in the form of working documents, draft reports, amendments and final reports, as well as other administrative documents such as minutes, agendas, political position papers and so on. It is a very substantial task to service all the Parliamentary bodies involved in this process, not least because they meet in different cities – Brussels for committee meetings and Strasbourg for plenary sessions, but also any other European city for political group meetings. The fact that the Secretariat is sited in Luxembourg, where very few of these bodies ever meet, serves to make the situation more interesting! More perhaps than any other international body, the European Parliament makes full use of all nine Community languages, giving a total of 72 possible language pairs. However the most important element to be borne in mind when trying to assess the complexity of the operations involved is the very short deadlines imposed for the translation, printing and distribution of all these texts in the appropriate meeting place. These deadlines can vary between a few days and a few hours. For example, a committee can meet on Monday evening in Strasbourg – its report becomes available to translators at midnight, and is wanted for debate in the plenary in nine languages next morning in 500 or 600 copies. At the same time staff in Luxembourg are preparing work for the following week's committee meetings.

Managing this level of complexity would not be possible today without a computerised control system: that system is GEPRO. It provides instantly available information online on the progress of all this work. It directly or indirectly controls the work of over a thousand staff. The translation directorate alone accounts for over 700 of these, of whom 460 are translators and revisers.

DEFINITION OF THE APPLICATION

The GEPRO system is a job tracking, scheduling and logging system. A job is basically having a document translated, typed, printed and distributed. The GEPRO system possesses the ability:

- to initiate a job, i.e. create a task when a text arrives for translation;
- to schedule the tasks of the nine translation divisions responsible for carrying out the translation and typing of the document concerned;
- to schedule and assign tasks to the various employees within the translation divisions - translators, revisers, secretaries;
- to schedule the printing and distribution of documents;
- to monitor the progress of documents and their related tasks – to know exactly where a given language version is in the system and at what date and time it arrived there;
- to retrieve statistical information on documents and their related tasks (e.g. job types, throughput, frequencies, performance figures, etc.);
- to allow each head of service to review the current ‘state of play’ in his or her department.

One of the basic elements of the system is a routing slip commonly referred to as the *Feuille de Route*. The act of creating a FdR marks the creation of a job. (Prior to this various other pieces of information about the future job may have been entered in a ‘pre-FdR’.) This job in turn will create a number of tasks, depending on the number of languages a document is to be translated into and the number of languages a job is composed in (many heavily amended texts contain material tabled in several languages) and depending also on whether a document is to be printed and distributed or merely returned to the author.

These tasks become active the moment PLANNING despatches them to the other groups for processing. When a task is despatched to a translation secretariat it becomes a language task, when it is despatched to the printshop it becomes a print task and so on. When a task is despatched to a group it is held in that group’s electronic ‘in-tray’ until that group accepts it (book-in). It is then said to belong to that group until it is despatched (book-out) to another group.

GEPRO functional accuracy is based upon the assumption that its participants perform a few simple but necessary functions. These include prompt and accurate acceptance and despatch of tasks, accurate provision of information when required and prompt action on all mail/memos received. Since the benefits to each of the user services of up-to-the-minute and accurate information are well perceived, and the users themselves have structured their work round the fact that the information is reliable, we do have a very high quality of information in the system. Since we are dealing with deadlines ranging from ten days to one hour the advantages of a system which allows all the users instant access to real time data are clear.

HARDWARE AND SOFTWARE

The GEPRO system has been running since 1985. The 1985 version was written in COBOL and runs on a WANG VS minicomputer connected to workstations in all the user services in Luxembourg and via the X.25 telecommunications protocol to minicomputers and workstations in Strasbourg and Brussels.

A rewrite of the system has just been completed to allow it to run under UNIX with workstations connected by Ethernet in accordance with Parliament's commitment to open systems. It runs under an Oracle relational database management system. User terminals are PCs running a terminal emulation (VT 220). The application runs on an AT&T 3B2 700 Unix minicomputer with 32 MB of memory and 300 MB disk storage. The number of concurrent users is typically 25 to 30.

The database contains 18 tables of data the most important of which are the JOB table and the EMPLOYEE table. The job table contains the following types of information: the unique job number for this production, the various parliamentary reference numbers, the requesting service, the person responsible for the text, the document type, the destination of the document, the meeting date, the number of pages, references for any background documents for translators, place of translation, date requested for completion etc.

Other tables contain the logging dates – the date and time of arrival and departure from the various services. The employee table contains information on the authors, planning staff, and translators, including their knowledge of languages and any specialisations.

USE OF THE SYSTEM

The system can logically be broken down into three types of activity:

Data entry, with staff in all the secretariats of the service involved, particularly the Planning service, creating information and updating it;

System interrogation, with staff using the system to trace or check the progress of jobs, frequently in response to telephone enquiries from staff not directly linked to the system – here the speed of response and the ability to provide up-to-the-second information are vital;

System outputs, in the form of printed listings such as the list of late jobs, printed automatically before the start of each day, the list of work due for the day, the projected workload over the next thirty days, the list of translators with their current workload, leave arrangements and consequent availability to receive more work, statistics on output, etc.

These system OUTPUTS are in turn used by the managers in planning and in the translation divisions as tools for controlling the INPUTS – that is to say attempting to match capacity and demand.

The heads of the translation divisions input their estimated capacity for the period in question to the planning service. This information in conjunction with the parliamentary timetable, is used to fix a level of demand. To meet this demand they have to allocate resources taking into account a number of considerations such as the language skills and relative experience of the individual translators as well as their availability for work and their current workload. Some of these elements are quantifiable and others rely on the managerial judgement of the head of division. GEPRO attempts to provide the manager with as much information as possible to allow him or her to make an informed and efficient judgement.

GEPRO AS A TOOL FOR THE ELECTRONIC TRANSMISSION AND RETRIEVAL OF TEXTS

The GEPRO number, document type code and language version are used as the path name for the physical location of texts. This means that it is easy for any GEPRO user to find a document using any of the GEPRO search criteria and then electronically retrieve the language version which interests him from any one of the ten Unix minicomputers on which the documents are stored. This feature is used by the parliamentary questions department, for example, to recover the texts of questions to the Commission which are then transmitted electronically to the Commission's services. The translation divisions use the same method to retrieve texts from Luxembourg to Strasbourg during plenary sessions. This type of electronic transfer of texts

has been in use in our services for the last few years, for limited quantities of texts.

The most important future application is to use the link between GEPRO and the electronic documents to eliminate the physical transmission of paper between buildings and cities. The technology is already installed and this feature is planned for the next release of GEPRO.

In that version the act of requesting a translation job through GEPRO will make the text to be translated visible to the planning service for checking and scheduling. The text will then be available for translation by electronic transfer. The completed translations will be sent either to a computerised photocomposition system or directly to networked laser printers in Brussels close to committee rooms or, for larger print runs, to the print shop or outside contractors.

HOW WAS THE PROJECT IMPLEMENTED?

The program went through several generations before reaching its present form.

The impetus for its creation came from a need felt in several services of Parliament whose work is interdependent, primarily the committee secretariat, the translation service and the printing and distribution departments. The first attempt to meet this need came from the translation service, where a translation management application was developed using the equipment which had been installed for word processing. This program in fact still operates as part of the translation management module of GEPRO.

Later we employed an external programmer to write a prototype system for a 'feuille de route électronique' to cover all the departments involved. This version was further developed in-house with the help of another colleague, an Italian translator. Subsequently a full-time programmer was recruited and we rewrote the application in Cobol. For the current rewrite under Unix we have recruited an additional external expert to work with our in-house programmer.

It may be instructive to note that we first entrusted this rewrite to an outside software house but were obliged to reject their product and impose penalties as they failed to deliver a usable product in time. The lesson we learned was that it was very important to have a close working knowledge of our own procedures and needs and to remain in close contact with the user services at all stages of the development.

Another important lesson is to keep the project under control – that is to say, keep it practical and workable and resist the temptation to seek in it a radical solution to all the problems facing your organisation.

It may also be instructive to note that the translation service has always played a key role in the project. Here Parliament's policy of decentralising the management of local applications to the user services has proved successful.

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