

Veterans Affairs Canada

Analyzes Data With ACL

By Steve Force

Government agencies, like private organizations, are searching for ways to cut costs, streamline the delivery of IS services and empower end users. The Department of Veterans Affairs for Canada (VAC), with 3700 employees and a budget of \$1.8 billion (Canadian), is in the final stages of an initiative that has put new power in the hands of end users, allowing them to retrieve and analyze data without requiring time-consuming IS intervention. The results have been gratifying: reduced costs, improved service levels and more timely and effective decision-making.

"When VAC began this initiative in 1988, the main challenge was to access and report on legacy data," reports Bob Gardham, chief of financial systems development at VAC's headquarters in Charlottetown, Prince Edward Island. VAC maintains extensive databases on Canadian veterans on an Amdahl 5870 mainframe system operating under MVS. The primary DBMS is CA-DATACOM (Computer Associates, Islandia, NY).

"There is a continuing need to be able to efficiently access the information in these databases and create reports required by changing and ongoing projects," Gardham notes. The previous system for generating reports, in which end users would submit requests to IS, was inadequate to meet the emerging needs of the organization. VAC experienced all the limitations of the traditional reporting process. "It often took up to three months to receive the results of a request," Gardham says. "If there were errors or questions, either by IS or the person requesting the report, the process would begin again."

Other problems plagued the agency. For example, once a report was obtained, there was

further need for additional analysis to verify the accuracy of data or to reconcile it with other information. The manual requirements to accommodate some of these needs were so extensive that they overwhelmed the IS staff. Other difficulties involved reconciliation of payments made by contractors to pharmacies and other treatment providers on VAC's behalf.

A Tool For Finance-Oriented Professionals

In 1988, VAC began seeking a more modern solution for its financial internal control application needs. Available mainframe tools were deemed inappropriate because they required too much technical training to be used by finance-oriented professionals. VAC was committed to

giving end users a tool they could use without extensive training to meet a large percentage of their information collecting

and reporting requirements. The agency sought a tool that would allow nontechnical end users to extract mainframe data and download it to their desktops for data analysis and reporting.

VAC embarked on an extensive review of the available alternatives and tested a number of host- and PC-based data management products. Eventually, thanks to a recommendation by the office of the Comptroller General for Canada, VAC evaluated ACL, a comprehensive data access and analysis program from ACL Services, Inc. (Vancouver, BC, Canada

The major goal of giving finance division end users a sophisticated yet easy-to-use data management tool has been met.

and Encino, CA). Initial tests indicated the system was faster in analyzing data than many of the alternatives the finance department evaluated.

Introduced in 1985, ACL has evolved into a general data inquiry and reporting system for end users and is available for DOS, Microsoft Windows 3.1 (Microsoft Corp., Redmond, WA) and MVS users. Users may interrogate any data structure on mainframe or PC platforms and perform complex file analyses. The system has both client and server functions. It works with most networks, hardware platforms and other software systems. It can extract files or portions of files from the mainframe (or any server). It can deliver that extracted data directly to the PC (or any client) for further analysis and reporting.

ACL requires no computer programming or coding experience to operate. Users do not need to know the structure of the file being analyzed. ACL provides intelligence to tell the user what of interest is in the file and what files are available for interrogation on any particular platform.


Sort, Sample, Analyze And Report

In its first application, ACL extracted

MIGRATION TRANSLATORS

- COBOL to "C" - COBOL 68, 74, 85
- PL/I to "C" - IBM, DRI, STRATUS, etc.
- PL/M to "C" - 51, 80, 86, 96, 286, 386
- ASM to "C" - MASM, ASM86
- PC-based translation tools
- Custom dialects, translation service, site licenses, source code available

Micro-Processor Services, Inc.
92 Stone Hurst Lane, Dix Hills, New York 11746 USA
Tel. (516) 499-4461; Fax (516) 499-4727

"Meeting your software migration needs since 1976" 

CIRCLE #18 on Reader Service Card ▲

TRACE

COBOL/COBOLII
(MVS) Batch, IMS, CICS

prints IF's with Cobol source code
and contents of operands
great debug tool!

T. Walton Associates, Inc.
10873 Vinedale St., Sun Valley, Ca 91352

CIRCLE #340 on Reader Service Card ▲

information from tape drive files created on the mainframe. In conjunction with a nine-track tape drive connected to a desktop workstation, ACL extracted data from the 6250 BPI mainframe tape to PC files. In this process, ACL automatically converted EBCDIC IBM format to standard ASCII format. This feature allowed non-programmers to sort, sample, analyze and report on the detailed financial data directly from billing tapes provided by outside insurance contractors.

After the initial use of the product, VAC installed six additional copies of ACL for use by finance personnel. Currently, a total of 14 copies of ACL are in production: five in VAC regional offices, eight in the head office in Charlottetown and one in Ste. Anne de Bellevue Hospital, Montreal, Quebec. Application usage continues to expand into areas not originally envisioned, such as using ACL to discover and utilize data structures that were undefined or unfamiliar to users.

As other VAC divisions saw the uses to which the finance division put ACL, they also began to use the system. For example, the programming department uses ACL to help debug IS reports. ACL is also used as a tool for analysis and quality control of large files and databases. Today, ACL is used throughout the organization to benefit all divisions, including finance, management, quality control and operations.

The system resides on the finance division's NetWare 3.11 (Novell, Inc., Provo, UT) LAN so it can be used network-wide. It has become a standard part of ad hoc reporting, analysis and even production systems. "VAC averages 35 ad hoc inquiries daily. Routine jobs are scheduled for batch processing. Batch jobs can be set up and changed as required. These batch jobs can be scheduled to run nightly for multiple applications by all personnel," Gardham points out.

After VAC personnel extract mainframe data, they either load it into word processing documents or transfer it to dBASE file format for general use in other database programs. "ACL can be used to verify the integrity of the data within dBASE (Borland Corp., Scotts Valley, CA) files," Gardham notes. "Other uses include the transfer of ACL output into graphics programs for colorful presentations to managers, other departments or other government agencies. And all of this can be done within the PC environment or with a mix between PCs and mainframes or other hardware platforms."

End-User Empowerment

ACL empowers end users by reducing mainframe hardware, software and personnel resource dependency. No computer or programming experience is required. ACL actions can be performed through pop-up menus or through its simple but powerful command language. Help screens are available throughout. Prompts and available data are automatically presented to users on request. A single keystroke displays file or data choices in a pop-up window. Reports have default formats that users can change conversationally as required.

The finance division uses the PC version of the product. ACL on the mainframe is virtually the same as the PC version. Users are able to access the mainframe data such as SQL, IMS, DB, VSAM or other complex data structures and present that data to the user in a clear and uniform format. Once that is done, users can easily identify those files or portions they wish to extract and download; since ACL can do the extraction analysis directly on the mainframe, users will download only required data.

The major goal of giving finance division end users a sophisticated yet easy-to-use data management tool has been met, Gardham believes. The system is not only simple to operate, but provides a tutorial function.

The LEARN command, for example, is a type of macro facility within ACL that allows the user to create a batch file with typing in commands. This batch file then can be run against the data file as needed. If users receive similar files each month they could run the batch file created using LEARN to sort, stratify or sample the data automatically.

The ANALYZE command allows users to view a file with virtually no knowledge about the file or its environment. The STRATIFY command produces a file report automatically according to user groupings with subtotals for each.

By all accounts the VAC finance division is more productive, thanks to its investment in technology. The users are well-positioned to respond promptly to requests for information. The result is higher quality service for the Canadian veterans agency serves.

ABOUT THE AUTHOR

Steve Force is a freelance writer specializing in applied connectivity and solutions. He is based in Clarkston,

and Encino, CA). Initial tests indicated the system was faster in analyzing data than many of the alternatives the finance department evaluated.

Introduced in 1985, ACL has evolved into a general data inquiry and reporting system for end users and is available for DOS, Microsoft Windows 3.1 (Microsoft Corp., Redmond, WA) and MVS users. Users may interrogate any data structure on mainframe or PC platforms and perform complex file analyses. The system has both client and server functions. It works with most networks, hardware platforms and other software systems. It can extract files or portions of files from the mainframe (or any server). It can deliver that extracted data directly to the PC (or any client) for further analysis and reporting.

ACL requires no computer programming or coding experience to operate. Users do not need to know the structure of the file being analyzed. ACL provides intelligence to tell the user what of interest is in the file and what files are available for interrogation on any particular platform.

Sort, Sample, Analyze And Report

In its first application, ACL extracted

information from tape drive files created on the mainframe. In conjunction with a nine-track tape drive connected to a desktop workstation, ACL extracted data from the 6250 BPI mainframe tape to PC files. In this process, ACL automatically converted EBCDIC IBM format to standard ASCII format. This feature allowed non-programmers to sort, sample, analyze and report on the detailed financial data directly from billing tapes provided by outside insurance contractors.

After the initial use of the product, VAC installed six additional copies of ACL for use by finance personnel. Currently, a total of 14 copies of ACL are in production: five in VAC regional offices, eight in the head office in Charlottetown and one in Ste. Anne de Bellevue Hospital, Montreal, Quebec. Application usage continues to expand into areas not originally envisioned, such as using ACL to discover and utilize data structures that were undefined or unfamiliar to users.

As other VAC divisions saw the uses to which the finance division put ACL, they also began to use the system. For example, the programming department uses ACL to help debug IS reports. ACL is also used as a tool for analysis and quality control of large files and databases. Today, ACL is used throughout the organization to benefit all divisions, including finance, management, quality control and operations.

The system resides on the finance division's NetWare 3.11 (Novell, Inc., Provo, UT) LAN so it can be used network-wide. It has become a standard part of ad hoc reporting, analysis and even production systems. "VAC averages 35 ad hoc inquiries daily. Routine jobs are scheduled for batch processing. Batch jobs can be set up and changed as required. These batch jobs can be scheduled to run nightly for multiple applications by all personnel," Gardham points out.

After VAC personnel extract mainframe data, they either load it into word processing documents or transfer it to dBASE file format for general use in other database programs. "ACL can be used to verify the integrity of the data within dBASE (Borland Corp., Scotts Valley, CA) files," Gardham notes. "Other uses include the transfer of ACL output into graphics programs for colorful presentations to managers, other departments or other government agencies. And all of this can be done within the PC environment or with a mix between PCs and mainframes or other hardware platforms."

End-User Empowerment

ACL empowers end users by reducing mainframe hardware, software and personnel resource dependency. No computer or programming experience is required. ACL actions can be performed through pop-up menus or through its simple but powerful command language. Help screens are available throughout. Prompts and available data are automatically presented to users on request. A single keystroke displays file or data choices in a pop-up window. Reports have default formats that users can change conversationally as required.

The finance division uses the PC version of the product. ACL on the mainframe is virtually the same as the PC version. Users are able to access the mainframe data such as SQL, IMS, DB2, VSAM or other complex data structures and present that data to the user in a clear and uniform format. Once that is done, users can easily identify those files or file portions they wish to extract and download; since ACL can do the extraction analysis directly on the mainframe, users will download only required data.

The major goal of giving finance division end users a sophisticated yet easy-to-use data management tool has been met, Gardham believes. The system is not only simple to operate, but provides a tutorial function.

The LEARN command, for example, is a type of macro facility within ACL that allows the user to create a batch file while typing in commands. This batch file can then be run against the data file as needed. If users receive similar files each month, they could run the batch file created under LEARN to sort, stratify or sample the file data automatically.

The ANALYZE command allows users to view a file with virtually no knowledge about the file or its environment. The STRATIFY command produces a file report automatically according to natural groupings with subtotals for each.

By all accounts the VAC finance division is more productive, thanks to its investment in technology. The users are well-positioned to respond promptly to requests for information. The result is higher quality service for the Canadian veterans the agency serves.

ABOUT THE AUTHOR

Steve Force is a freelance writer specializing in applied connectivity and DP solutions. He is based in Clarkston, MI.

MIGRATION TRANSLATORS

- COBOL to "C" - COBOL 68, 74, 85
- PL/I to "C" - IBM, DRI, STRATUS, etc.
- PL/M to "C" - 51, 80, 86, 96, 286, 386
- ASM to "C" - MASM, ASM86
- PC-based translation tools
- Custom dialects, translation service, site licenses, source code available

Micro-Processor Services, Inc.

92 Stone Hurst Lane, Dix Hills, New York 11746 USA
Tel. (516) 499-4461; Fax (516) 499-4727

"Meeting your software migration needs since 1976"

CIRCLE #18 on Reader Service Card ▲

TRACE

COBOL/COBOLII
(MVS) Batch, IMS, CICS

prints IF's with Cobol source code and contents of operands
great debug tool!

T. Walton Associates, Inc.
10873 Vinedale St., Sun Valley, Ca 91352

CIRCLE #340 on Reader Service Card ▲