ELEMENTARY - SECONDARY - VOCATIONAL INFORMATION SYSTEM (ESV-IS) AND MICROCOMPUTERS

A REPORT ON MECC ACTIVITY USING MICROCOMPUTERS FOR ESV-IS APPLICATIONS

Management Information Systems Division

Minnesota Educational Computing Consortium
2520 Broadway Drive
St. Paul, Minnesota 55113

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Introduction

The introduction of the microcomputer to instructional computing in Minnesota has created a high level of interest in examining its use for administrative purposes. More specifically, there have been numerous requests to use the APPLE II microcomputer in conjunction with the Elementary-Secondary-Vocational Finance (ESV-FIN) System which is required by all districts or as an alternative to ESV-FIN.

Some of these concerns and interests have been written into legislation. The 1979 legislature called for a study of how the microcomputer could be integrated into educational computing to reduce communication costs. The 1980 legislature appropriated $100,000 to study a finance package developed by the Ortonville School District and to develop and pilot a finance system which would meet Uniform Financial Accounting and Reporting Standards (UFARS). The law (in another section) also provided an opportunity for smaller school districts to submit a proposal to do their financial accounting on an alternative to ESV-FIN. ESV-FIN runs only on the large Burroughs computers found in the ESV Regional Centers.

While the legislation certainly provides motivation for microcomputer activity by requiring reports and providing resources, it should be noted that both MECC and the users of ESV-IS recognize the emergence of the microcomputer and are eager to utilize its capabilities in addressing school district management information needs.

This report is intended to summarize the activity that has been taking place, hopefully to address the intent of the legislation and the needs of the user.

Alternatives to ESV-FIN

Legislation passed in 1976 (M.S. 121.92) required that all districts must do their accounting using the multi-dimensional UFARS method for the 1980-81 fiscal year. The ESV-FIN computerized system available through the regional centers meets the UFARS requirements.

The 1980 legislation kept the UFARS requirement but provided that organizations with less than 3000 ADM could submit their financial information in summary form if by July 1, 1980, the district could demonstrate that its proposed alternative was in full accordance with UFARS and that its plan was approved by a special (temporary) committee of three. This legislation was an intent to allow Ortonville, who was processing on a microcomputer, and similar districts, an opportunity to continue their effort whether it be microcomputer or manual.

The committee of three consisted of Ron Moir, Director of School Financial Management State Department of Education, Steve Jungbauer, MECC Manager of ESV-FIN, and Dale Schneiderhan, MECC Director of MIS. This team coordinated and conducted the activity described in the rest of this section of the report.

The first activity was to meet with the legislative research staff to clarify the intent of the legislation and to develop a plan for implementation recognizing that proposals had to be approved or rejected before July 1, 1980. Several meetings were held with the first being April 10.

Five steps were identified as being necessary to implement the legislation. The steps and due dates were as follows:

A. Notify and inform school districts of the new legislation in the FAI Newsletter from Moir's office.
April 25th

B. Districts should contact their regional accounting coordinator and copy Moir, Jungbauer and Schneiderhan of their interest and intent to pursue an alternative to ESV-FIN.
May 10th

C. The State would conduct a workshop(s) to more completely explain the implications of using an alternative to ESV-FIN and to identify what is needed in a proposal from the districts that want to pursue an alternative. This workshop would be conducted only for those districts that had expressed an intent by May 10th.
May 19th

D. Proposals due from the districts.
June 14th

E. Approval or rejection by Committee.
June 25th

Criteria, based on the legislation, for accepting or rejecting the proposals were identified and an evaluation form was developed. The criteria consisted of:

A. Cost of alternative to the district.

B. Impact on the ESV Region.

C. UFAR Requirements

D. ESV-FIN interface procedures.

Based on the above plan, twenty-nine districts and special units expressed an interest in pursuing an alternative. They were invited to a workshop held at Willmar on May 19, 1980. Twenty-six of the twenty-nine were represented at that meeting. At that meeting, the various UFARS requirements were explained, as well as the new legislation. Those who wanted to pursue an alternative were told that they would have to develop and submit a proposal addressing the following areas:

I. PLAN

General overview of how a district plans to meet UFARS and general reporting requirements.

II. BUDGET

Specific information about expenditures for computers, computer programs, staff support, regional fees, and related costs. Identify source of funds if other than general fund.

III. STAFF

Specific information about staffing, including availability, expertise required, amount of time required, and back-up plan in case of staff turnover.

IV. COMPUTER AND PROGRAMS

If a computer is going to be used, identify the source (lease, purchased, etc.), the name, model number, and size. Attach a copy of the User Manual for other documentation for the computer(s).

V. REPORTING

Clarify the intended relationship with the Regional Center. Identify a plan for submitting the reporting data to the Regional Center.

VI. OTHER

Explain any special circumstances that should be considered before a final decision is made.

As a result of that meeting, five districts/units developed and submitted proposals. Their proposals are summarized as follows:

Albany, ISD #745 (Region III) - Intended to purchase either a NCR8231 or a Burroughs 92. They claimed they would save $6,862 per year for Finance, Payroll and Student Processing. They were assuming a 15 year life for amortization of costs of hardware and vendor supplied software and no programming costs. Other than questionable cost assumptions, the proposal was well written.

Mahtomedi, ISD #832 (METRO II or TIES) - They were looking at getting either a Digital 408, Burroughs 91 or IBM System 34. Not sure whether they would affiliate with TIES or METRO II.

Verdi, ISD #408 (Region IV) - Planned to operate manually but would report to Region IV annually (instead of monthly).

METRO ECSU (METRO II or TIES) - Planned to replace a part-time person with a full-time bookkeeper/accountant. Claimed they couldn't afford the ESV-FIN system because they couldn't afford the hardware costs. Planned to do bookkeeping manually and affiliate with either METRO II or TIES.

Ortonville, ISD #62 (Region IV) - Planned to convert their financial package to the APPLE II and modify it to meet UFARS requirements.

The five proposals were reviewed on the basis of the criteria previously established. The Albany and Mahtomedi proposals were rejected, primarily because it appeared it would be impossible to bring up the new hardware and software in time to meet the July 1 UFARS requirement. The two districts were so informed and encouraged to continue their planning if they wanted to pursue the alternative in future years, because the legislation identified an ESV Advisory Council which would decide on alternatives in future years.

Verdi and the METRO ECSU which were proposing a manual system with periodic reporting to a region was accepted as proposed.

Ortonville which proposed doing their accounting on the APPLE II was approved provided that they could have their system modified to meet UFARS by January 1, 1981, and would save all data from July 1 so they could go back and use ESV-FIN from the beginning of the fiscal year if need be.

In summary, of the 510 districts/units which were eligible for an alternative to ESV-FIN, 29 expressed interest by submitting letters of intent, 5 developed proposals, three were approved. The status of these three as of January 1, 1981 is as follows:

METRO ECSU

Since approval of their alternative proposal, the METRO ECSU has decided to affiliate with TIES and use ESV-FIN instead of a manual alternative. Therefore, they should no longer be considered as using an alternative program.

Verdi

Verdi was using ESV-FIN through Region IV prior to the July 1, 1980, UFARS date. Since their proposal has been approved, they have maintained their UFARS chart of accounts on ESV-FIN and have been accumulating their financial transaction in manual form. They plan on manually summarizing these transactions and submitting them to the regional center at the end of the fiscal year.

Ortonville

The Ortonville project is explained in more detail in another section of this report. As far as relating to the alternative to FIN proposal, Ortonville has been doing all of their financial processing on their own computer program and saving the transactions so they can go back to July 1 if necessary. They are also converting the programs to run on the APPLE II, have installed the multi-dimensional capability and are developing the programs that will be used to accumulate this information and transfer it to the regional center for reporting purposes. At this time, Ortonville should continue to be categorized as using a stand-alone microcomputer program as an alternative to ESV-FIN.

A MICROCOMPUTER FINANCE SYSTEM: THE ORTONVILLE PROJECT

Approximately two and one-half years ago, the MECC Director of MIS first visited the Ortonville Council on Quality Education Micro Project. The project was also reviewed when MECC staff developed the report, Feasibility Study of Administrative Uses of Microcomputers, May 1979. That visit and a considerable amount of follow-up communication and site visits indicated that Ortonville had a financial package that (1) was very cost-effective for the district, (2) met district user needs and (3) did not meet UFARS and other State reporting requirements.

With that background, MECC began to plan for a micro finance package based on the Ortonville project as soon as the 1980 legislation and appropriation was finalized. One of the first tasks was to identify the different people that needed to be involved in the project. The following list of committees and roles were identified:

ESV MICRO FINANCE STEERING COMMITTEE

DESCRIPTION; A group composed of legislation analysts, SDE, Regional Director, MECC Management, small school district superintendents.

ROLE: Keep abreast of Micro Finance project, review plans and make general/policy decisions.

MEMBERS:	Laura Miller	Legislative Research
	Tricia Grimes	Legislative Research
	Don Thomas	State Department of Education
	John Haugo	MECC
	Doug LaChance	MECC
	Ron Moir	State Department of Education
	Sidney Belt	Region IV
	Burton Nypen	Supt., Ortonville
	Don Jensen	Supt., Adrian
	Dale Schneiderhan	MECC

ESV MICRO FINANCE USER COMMITTEE

DESCRIPTION: A group of personnel from SDE, MIS, ESV Regions, and small school districts. Knowledge in accounting principles, user needs, and finance system.

ROLE: Identify user needs, State requirements, and conceptualize micro finance design.

MEMBERS:
Stan Tikkanen
Linda Neuman
Jay Ross
Steve Jungbauer
Jim Benson
Ken Zastrow
Ed Gander
Paul Dee
Burt Liljeberg
Kris Anderson
Ken Hasledalen

MECC INTERNAL REVIEW GROUP

DESCRIPTION: Management people from within MECC.

ROLE: Keep abreast of progress and make recommendations relating to the development of the system.

MEMBERS:
John Haugo
[illegible]erhan
Doug LaChance
Steve Jungbauer
Kent Kehrberg
John Brisky

DEVELOPMENT GROUP

DESCRIPTION: Designers and developers

ROLE: To design and program system, provide user documentation, technical documentation, status reports, legislative report.

MEMBERS: Keith Stokka
Craig Copley
Anne Barasch
Contractors as needed.

Based on input from the above groups the following list of assumptions were adopted as a point of departure.

1. Initial micro configuration is a 48K APPLE, 2 disks, 1 monitor, 1 hard copy printer with 132 print positions.

2. Districts will agree to purchase hardware and provide operations staff.

3. A basic minimum level of user needs can be determined (agreed upon) for the application to be developed.

4. Application developed would meet the minimum State reporting requirements which include UFARS.

5. The application developed would be able to accomplish the primary tasks of a financial computer system.

6. MECC-MIS's role in the delivery of software is similar to ESV's; MECC instructs the ESV Regions and the Regions support the districts.

7. The system would be targeted for smaller school districts (those with a student base of less than 2,000 students) but large district requirements will be considered.

8. Software will be written to optimize capabilities of the APPLE. MECC will maintain MICRO-FIN similar to ESV-IS.

9. Ortonville's finance programs will be used whenever possible.

10. Data from the MICRO FIN System will be transmitted to ESV Regions to meet State reporting requirements.

From these assumptions, a work-plan was developed which included the following general tasks:

Tasks	Method/Responsibility
1. Determine legislative intent relative to $100,000 Micro Finance System.	1. Meeting with Tricia Grimes and Laura Miller.
2. Inform Steering Committee of Micro finance plan.	2. Meeting with Steering Committee.
3. Needs Analysis, identify SDE requirements, identify school district requirements.	3. Meeting with technical advisory group, (1-2 day).
4. Review Ortonville micro finance system.	4. Meeting with Ortonville.
5. Develop conceptual design.	5 - 6. With input from technical advisory group and review of Ortonville project, the micro development team, with as needed consultation from ESV finance team, will complete Tasks 5 and 6.
6. Review SDE and user requirements with conceptual design to determine practicality of a micro finance system.	
7. Finalize micro finance plan and produce recommendations relative to the development of a micro finance system.	7. Meeting with MECC management group.
8. Detail system design.	8. Micro development team.
9. Write programs.	9. Micro development team.
10. Test programs.	10. Micro development team.
11. Combine programs and perform a system test.	11. Micro development team.
12. Develop user documentation, operator documentation, and system documentation.	12. Micro development team.
13. Pilot test.	13. Micro development team and selected small school district.

During August and September of 1980, the various committees met, reviewed the Ortonville package and identified the user requirements of a micro finance package. It was determined that the Ortonville programs did not meet all the reporting requirements as well as some of the user identified needs. As a result of this assessment, a system design document was developed, in concert with Ortonville, which met reporting requirements and additional user needs. This document, about 75 pages, is available at MECC.

Shortly after that, the word came from the State that all new programs were going to be cut, and none of the $100,000 was going to be available. With that news, all development and most of the committee activity was suspended. A contingency plan whereby the Ortonville system would be modified to meet State reporting requirements was developed.

Five tasks were identified:

1. Convert existing Ortonville programs from Timeshare to APPLE
2. Modify programs to meet SDE reporting requirements
3. Develop General Ledger programs
4. Provide encumbrance capability
5. Develop user documentation.

It was determined that these tasks could be completed basically by Ortonville CQE project staff with some MECC/SDE consultation and some contracted programming assistance. A contract was developed and CQE provided that required additional funding.

As of January, 1981, the programming has been completed and tested. The major tasks remaining are (1) completion of the user documentation and (2) interfacing the system with ESV-FIN for reporting purposes. When these tasks are completed (sometime before July 1, 1981) MECC will recall the various committees to review the system from a user point of view. This review will be used to develop a recommendation as to what the future role of the Ortonville package should be. One option might be to call it MICRO-FIN and to make it available on a state-wide basis as an alternative to using ESV-FIN.

THE MICROCOMPUTER AS AN MIS TERMINAL: THE ADRIAN PROJECT

MECC-MIS has been actively pursuing the use of the APPLE-II microcomputer as an MIS terminal in conjunction with the Telecommunications Study conducted by the Special Projects Division of MECC. An earlier feasibility study by MECC, A Feasibility Study of Administrative Uses of Microcomputers, May 1979, indicated that it was feasible and desirable to pursue this alternative.

The following pages 13-17 have been taken from Telecommunications and Microcomputers: A Study of the Minnesota Elementary and Secondary School Educational Computer Delivery System and describe the Adrian project.

2.2 Promote the Use of Microcomputers in the Delivery of MIS Services

In May of 1979, MECC conducted a feasibility study* of using microcomputers for administrative purposes. One of the recommendations of this study stated that "MECC should more thoroughly investigate the use of the APPLE II as a terminal device for the ESV-IS." The Telecommunications and Microcomputers Study has supported this objective and the results of this development effort and pilot testing are reported below.

Much of the data entry into the MIS regional computer systems is done through CRT's. These devices must be in communication via telephone lines with the host computer for the duration of the data entry period. Although telephone communications are optimized using multidrop lines and multiplexing devices, the cost for telecommunications is significant and increasing. Previous investigations conducted by MECC indicated that the APPLE II microcomputer could communicate with the MIS Burroughs computer systems. If much of the data entry work could be completed with the APPLE II prior to communicating with the host computer through telephone lines, possibly a less expensive telecommunications network could be devised. Also, the regional center directors believe that additional computer resources are necessary to handle the communications with the CRT's. Therefore, the use of APPLE II's could result in lower computer hardware expenditures at the regional centers. An APPLE II based system would allow for the creation and editing of MIS data batches without the aid of telecommunication lines. These batches would then be transmitted to the host MIS computer using telephone lines for only a brief time.

Interaction with the State developed finance system (ESV-FIN) was identified as the objective of initial microcomputer development. This system, ESV-FIN, has been implemented in nearly all Minnesota school districts whereas the Payroll/Personnel and Student Support Systems are not as widely used.

The initial development steps involved preparing computer programs for the APPLE II microcomputer which would allow for the input and storage of 80 column card images similar to the ones typically entered into the CRT and the programming of telecommunication software to allow the APPLE II to transfer data to the host Burrough's computer system. Programs on the APPLE II to allow for building disbursement and vendor maintenance batches were developed first. These two input formats account for the majority of batches developed by small school districts.

The uploader and downloader developed by the Instructional Services Division of MECC to allow for the transfer of data between MTS and the APPLE II microcomputer was modified for use in the MIS environment. Screen formats were changed and the ability to write compressed data directly to the diskette were added. Compressing data, by encoding repetitious characters, allows more data to be stored on a unit of diskette space. A machine language program for the APPLE II was also developed to read compressed data from the diskette for use in printing reports through the APPLE II.

* A Feasibility Study of Administrative Uses of Microcomputers, May, 1979, MECC.

On the host end, the MECC software was modified to interact with the APPLE II. Enhancements were then added to further refine telecommunication between the two computers.

The development of these various pieces of software then allowed for the following types of interactions: A data entry person from a school district could build 80 column card images of both disbursement and vendor maintenance batches using the APPLE II microcomputer. These batches could then be stored on the APPLE II's disk drive system. After one or more batches had been prepared, local school personnel dial into the MECC B6700 computer, upload their batches and submit them for execution. Later, school personnel dial the host computer again and download an edit file containing any errors which may have been made in the original batches. These are resubmitted using the above process. Reports from the computer system had to be requested, normally through the CRT terminal. These would be printed at the computer center and sent by mail or van to the school district.

Following this initial development, a pilot site was selected for field testing. Since the prototype software was developed on the B6700 at MECC used to do the regular processing for Region IV, it was desirable to identify a Region IV school as the pilot site.

Independent School District #511 at Adrian, Minnesota was selected as a pilot site. Through their superintendent,* the district had earlier expressed an interest in developing MIS related APPLE II software. In addition, Adrian had a faculty member **, who was familiar with both the APPLE II and with the district's finance procedures. Adrian also had a variety of pieces of computing equipment including a 48K APPLE II, Decwriter III printer, and both low and high speed modems which could be useful in carrying out a complete test of various configurations of equipment. Adrian had a student population of 696 and is typical of the smaller Minnesota districts.

To initiate the pilot study, a parallel data base for Adrian was prepared on the host computer system. This allowed Adrian to conduct their normal ESV-FIN transactions while also carrying out transactions using the APPLE II system. Identical monthly reports were used to validate the procedures using the microcomputer.

The MECC staff provided an initial two hour training session for the Adrian personnel. Further assistance was then available by telephone. An initial request from Adrian was to adapt the software to handle three digit account codes rather than the standard 17 digit codes. The personnel at Adrian made this change in their APPLE II software and this was later incorporated in the software maintained by MECC. As a result, the district had only to enter three digits and the computer would convert to a 17 digit code. This modification reduced both data entry time and the number of errors made in data entry.

A few minor programming problems were encountered during the initial stages of the pilot testing. These problems, in the APPLE II programs, were quickly corrected. Problems were also detected in the uploading and downloading process. These involved adjustments in timing and in the coding and decoding of characters. These problems were also remedied. As no modifications were made to the ESV-FIN system itself, no problems in this area arose.

* Donald Jensen
** Theodore Reisdorffer

The personnel at Adrian are very pleased with the system and are eager to implement further capabilities. The MECC MIS staff has developed additional batch entry formats now operational with the exceptions of property, inventory, work orders and district control. These later formats are not typically used in school districts such as Adrian.

The time required to upload data batches using the APPLE II did not appear to be a significant telecommunications problem. Operating at 300 baud, 30 characters per second, sample batches were able to be uploaded in an average of 3.7 seconds per transaction. A district with 1000 students has a mean of 700 finance transactions per month. This would require about 43 minutes of telecommunications time to handle a month's transactions. It should be pointed out that this would be under ideal conditions. A heavy load on the host computer system can cause delays in the uploading process. However, this is a significant amount of work using a minimum amount of telecommunications.

Some school districts, including Adrian, have expressed an interest in printing reports within their own building. Currently they request reports which are then printed and shipped back from the regional center. In order to test the viability of downloading and printing reports through the APPLE II, a small report was constructed on the host computer. The report was downloaded to the APPLE II at 120 characters per second. In this test, a 30 page report was downloaded and printed in 27-1/2 minutes, an average of 55 seconds per page.

Based on this test, it is conceivable that schools could download and print small reports. However, it is not uncommon for schools to want multiple copies or to request large reports. Under these conditions the use of a high speed printing at the regional center would be more cost effective. The cost of telecommunications to download long reports would quickly negate the value of having the report immediately.

If the ability to print reports is desired in addition to the ability to upload data batches, then two hardware modifications should be considered for the standard configuration described in Figure 12. In the Adrian pilot project, a 48K APPLE II with dual disk drives was used with a Digital Equipment Corporation Decwriter III printer. This printer has a good record for holding up under heavy use. It can be operated at variable speeds, has sprocket feed paper, prints up to 132 columns and accepts standard computer forms. Schools which would expect to print reports on their terminals would have to consider this or a comparable printer. A printer of this quality would add $1800 to the initial cost of the hardware shown in Figure 12.

A second hardware consideration for report printing would be the use of a higher speed modem. The initial configuration used in Figure 12 used a 300 baud modem. This speed appears to be satisfactory for uploading and downloading data bases. However, a higher speed modem would significantly reduce the time necessary for downloading the large quantities of data in even a small report. For this case, a modem capable of at least 1200 baud speeds is suggested. Such a model would cost between $800 and $900. This would add around $600 to the cost of the basic system described in Figure 12. (A 300 baud modem was already included).

As a result of the Adrian pilot project, it is possible to compare the components and features of the two most common MIS data input methods with that of the APPLE II method. Figure 12 shows a listing of these characteristics along with comments for each of the three systems. It is interesting to note that not only does the APPLE II compare favorably to the other two methods, but it provides districts with the additional capability to print checks and small reports. This means that the turnaround time for these tasks can be greatly reduced and that the district has more direct control over some of their MIS activities.

If further testing continues to support the viability of APPLE II microcomputers as data building and forwarding devices for MIS, then several benefits may result from an adoption of this system by the regional centers. Possible benefits include:

- Elimination of need for keypunching services
- Reduction in editing problems requiring assistance by regional staff
- Reduction in load on computer system due to more error-free batches (pre ESV-PIN editing) and less CRT communications
- Increased district responsibility in the processing and timing of inputting their financial transactions

There are also some potential drawbacks to regional adoption of an APPLE II based input system. These drawbacks include:

- need for additional training of district staffs
- support for additional modes of input
- need for additional training for regional staff in the use of the APPLE II

The MECC MIS Division is continuing to enhance the APPLE II system for finance operations. Development is nearly completed for the printing of vendor checks from the APPLE II. It will be possible to print the checks based on the transactions entered into the APPLE's files. After printing the checks, the files can be uploaded to the regional computer so that its data base can be updated.

Additional developments are under way to facilitate the request of reports using the APPLE II as a terminal to the regional computer. These reports could then be printed at the regional center or downloaded to the APPLE II for local printing.

Other enhancements necessary to complete the project include improving the file maintenance and identification procedures on the host computer and streamlining the up and downloading process. When these tasks are completed, the APPLE II based data entry station will be ready for additional pilot testing.

COMPONENTS AND FEATURES	DATA ENTRY METHOD		
	BATCH FORMS REGIONAL KEYPUNCHING	DISTRICT ON-LINE CRT	DISTRICT APPLE II
School District Hardware Costs	none	$3100*	$3150
Hardware Maintenance	none	$290-$350/yr	$360/yr
Telecommunication Costs	none	high	low
Data Preparation and Input time	high	variable	low
Turn Around Time	high	low	low
Keypunch Services	$.05-.10/ transaction	none	none
Pre-ESV-FIN editing	no	no	yes
In-district check printing capability	no	no	yes
District control of ESV-FIN processing	low	high	high
District ability to enter transactions when Burroughs system is down	yes	no	yes
Ability to print short reports in district	no	no	yes

Figure 2-2. Comparison of the components and features of three data input and output devices

*Includes 2400 baud modem

- Figure 12 -

Conclusions

MECC, through an annual services agreement with the State Department of Education, provides computer development, maintenance and training support. The focus of this activity for MIS has been the ESV Information System, a comprehensive data based system utilizing a large host computer. This has been "the State plan" as presented to and funded by the legislature. However, both MECC and SDE are extremely interested in pursuing the microcomputer for MIS applications. MECC has conducted a feasibility pilot, the Adrian Project, through the Telecommunications Study funds and has worked with the Ortonville Project through some internal salary savings. The appropriations to pursue these areas were lost due to the budget cut.

MECC and SDE plan to significantly expand developmental activity for using microcomputers in MIS as reflected by the MECC 1981-83 biennial budget request.

In the meantime, MECC and SDE have agreed upon the following course of action:

MECC will:

1. Continue to work with Ortonville.

2. Assist Ortonville and the region to achieve State reporting requirements.

3. Place a hold on further development of a new micro finance system.

4. Continue further development of Adrian project (using the APPLE as a data entry device).

    a. Improve upload and download process for more simplicity and ease of use.

    b. Add programs to the APPLE so off-line entry and printing of checks may be accomplished at the district.

    c. Improve ESV-FIN Report Request to operate on APPLE screen.

    d. Provide continuing support, implementation, training, and documentation for some additional school districts.

It is anticipated that by the end of the current fiscal year, both the methods and programs from the Adrian Project and the Ortonville Project could be available for the entire state.