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GENESYS

FINAL REPORT

*Loan Management and
Information System for
the Women Enterprise Development
Programme
in Bangladesh*

*John H. Magill
Development Alternatives, Inc.
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United States Agency for
International Development
Office of Women in Development

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**LOAN MANAGEMENT AND INFORMATION SYSTEM
FOR THE
WOMEN ENTERPRISE DEVELOPMENT PROGRAMME
BANGLADESH**

by

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Final Report

Loan Management and Information System for the Women Entrepreneurship Development Programme Bangladesh

John H. Magill

A. Introduction

The Women Entrepreneurship Development Programme (WEDP) is a program of the Government of Bangladesh's Small and Cottage Industry Corporation (BSCIC) that is responsible for providing on-going support to the growth and development of small-scale, women-owned enterprises in the country. During the next three years, USAID/Bangladesh will provide assistance through its *Women's Enterprise Development Project* to help WEDP develop into a sustainable organization that is capable of providing high-quality, needed services to the women-owned micro-enterprise community.

To be successful, WEDP must manage a considerable amount of information on its clients. It must correctly assess their qualifications for participating in the program, determine appropriate assistance and training, manage a complex loan portfolio, track performance, and report on a variety of socio-economic indicators. Doing this successfully requires the support of an effective information system.

This report provides a brief description of the proposed management information system for the WEDP, describes progress to date in developing the system, and outlines future steps that need to be taken to ensure its timely and successful completion. Details of the system design, which were presented in the original report, are not repeated here. Also, the considerable detail on input and output forms, user procedures and system documentation that has been developed by the Bangladesh Rural Advancement Committee (BRAC) will not be repeated in this report, but will be submitted as separate documents.

B. System Overview

The information system for WEDP is a collection of closely linked subsystems. As identified at this time, the key subsystems are the Central Client Index, Loans, Training, Savings, Monitoring, and Accounting subsystems. A schematic diagram depicting the relationships among the various

WEDP MIS

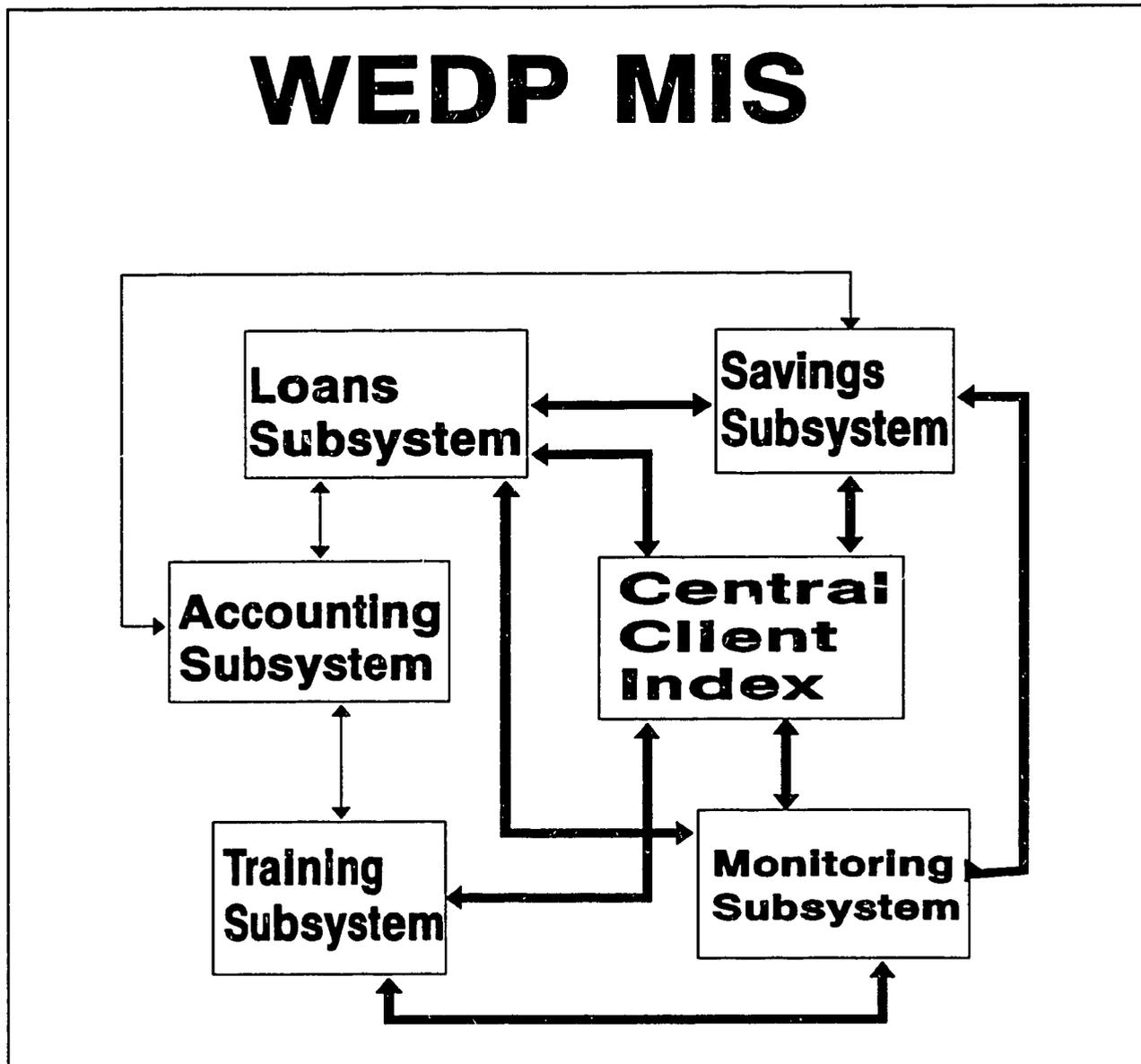


Figure 1. Architecture of the WEDP MIS

subsystems can be seen in Figure 1. The four core subsystems that have been developed and tested are the Central Client Index and the Loans, Training, and Monitoring Subsystems. The Savings subsystem will be operated manually at the present time, and the Accounting subsystem has not yet been defined by a separate accounting consultancy.

The six major subsystems, and their purposes, are summarized below:

- The *Central Client Index* is the key central data base in the information system. This is a set of data files, paper forms, and procedures, that is designed to provide a unique, unambiguous identifier, and to maintain both demographic and baseline data, on each and every WEDP client. The key data element in this subsystem is the **client ID number**, a unique number for each client that appears in every loan application, savings booklet, training roster and any other document referring to the client.

- The *Loans Subsystem* manages WEDP's loan portfolio, from inception to collection or default, supporting all functions related to the process of approving, disbursing, collecting and retiring loans made to WEDP clients. Among the functions this system supports are: loan approval; classification of loans according to economic sector, subsector, and loan use; loan disbursements; loan collections; delinquency control; posting of appropriate data to the general ledger; cash flow management; archiving of completed loans; recording of socio-economic data necessary for monitoring client impact; and reporting of loan activity and performance. The Loans Subsystem uses the Central Client Index for name, address and business information. The loan application form includes questions to gather information necessary for assessing impact (see later, in the section on impact monitoring), and generates information on receipts, disbursements, accruals, delinquencies and other information for posting to the accounting system.
- The *Training Subsystem* supports the functions associated with training WEDP clients. It maintains a record of all course participants and the courses they have completed, and reports the number of courses provided (by type), the number of participants in the various courses, and a statistical distribution of participants by the number of courses taken.
- The purpose of the *Monitoring Subsystem* is to maintain and report information on the progress of WEDP as an institution providing a vital service in Bangladesh, and on the impact of WEDP loans on borrowers. It consists of (a) data collected in a baseline survey during the client's first loan application, (b) a limited amount of data collected during each subsequent loan application, and a follow-up application of the initial baseline survey conducted at such intervals as deemed necessary. The main reporting modules of this subsystem cover monthly performance statistics, client demographics and project impact.
- The *Savings Subsystem*, should it be implemented, is designed to keep track of the savings deposited and withdrawn by WEDP clients, and to post interest to the accounts.
- WEDP's *Accounting Subsystem*, which is yet to be developed, must provide accurate and detailed accounts that permit the analysis of cost recovery for each branch in the system, as well as for the institution as a whole. The accounting subsystem has to perform six specific tasks: (a) maintain accurate, auditable accounts for the WEDP; (b) produce financial statements that both conform to local law and practices, and meet USAID/Bangladesh reporting requirements, which may not be the same; (c) produce accurate aging statistics and calculate loan loss provisions and expenses; (d) maintain separate cost center records and accounts as required by the WEDP to operate the branch offices as separate cost centers; (e) maintain separate accounts for subprojects or activities sponsored and funded by different donors or income sources; and (f) prepare and submit accurate vouchers for the grant project to USAID/Bangladesh.

These subsystems meet WEDP's immediate management requirements; additional subsystems can be developed as necessary as the system evolves.

C. Progress and Accomplishments During the Past Five Months

Planning and development of the MIS has taken place in three distinct stages during the past 5 months. The first stage, which took place in May 1994, assessed the system requirements and prepared a plan for developing the system. The consultant spent 4 weeks in Dhaka studying WEDP's operations and information system needs, and prepared a preliminary design of the system. This design outlined the functions and specifications for the system, and provided estimates of volumes, equipment requirements and personnel needs. Also during this time, the consultant identified firms in Dhaka that had the capability of programming the proposed system, and developed budget estimates for the hardware and software. This first stage concluded with the selection and subcontracting of the Bangladesh Rural Advancement Committee (BRAC) Computing Centre to develop the system.

The second stage began on July 1, as the BRAC Computing Centre began to develop the detailed internal system design and program the system. During this development process, BRAC programmers studied the specific workflows and data processing requirements of the WEDP system, developed the internal system design, developed input and output forms, planned and structured the data base, and developed the programs that would operate the system. The consultant periodically reviewed planned input and output forms and system specifications, and provided comments and guidance to the BRAC development team. This stage concluded on September 8, when the system was ready for demonstration and testing.

The third stage consisted in testing the system to make sure it worked properly and would meet WEDP's needs. The consultant returned to Dhaka on September 10, and spent three weeks with BRAC and WEDP reviewing the system and its various components.

D. Current Status

All planned modules have been developed and tested, and the system is ready to be implemented in the field. Savings will not be included as a module at this time, and the accounting system has not been developed.¹ Minor modifications and enhancements will undoubtedly be required once the system is operational and WEDP managers and staff become familiar with its operations.

E. Management Reports

Reports for WEDP are based on a priority pyramid, which tailors reports to the decisions that managers need to make. The level of detail is appropriate to, and focused on, the information needed to make those decisions. To understand this, it is necessary to understand that there are 4 levels of management responsibility in WEDP:

¹No decision has yet been made on implementing the accounting system. WEDP, under USAID/Dhaka instructions, has contracted the services of an accounting firm to design an accounting system for WEDP. That report is not yet available. Automating the accounting system was not included in the original BRAC subcontract.

- **Top Management**, which is responsible for setting program priorities and targets, and for assuring that the program is meeting its objectives effectively and efficiently;
- **Program Management**, consisting of the home-office directors, who are responsible for managing specific aspects of the program -- loans, collections, training and accounting;
- **Extension Officers**, who are responsible for the performance of their individual branch offices; and
- **Field Officers**, who are responsible for promoting new groups, making and collecting loans, and meeting established training targets.

Each of these has a different set of information needs and priorities. **Top Management** needs to make decisions regarding program priorities, direction and strategies. For this it needs to have a quick overview of program performance: it needs to know if targets are being met, if delinquency is being controlled effectively, and if the program is meeting its objectives. It does not need to, and should not, get involved in minute activity details. Accordingly, reports to top management need to be few in number, efficient, streamlined, and highly focused on potential problem areas. **Program Managers** need to have more detail about the specific activities they are responsible for, so that they can identify specific sources of problems and target corrective action. **Extension Officers** need to have information that quickly identifies problems within the branch office and helps to identify the characteristics and source of those problems. **Field Officers** need information that helps them manage their portfolio of clients effectively and efficiently. This requires very specific information about individual clients, especially those who are in arrears on loan payments.

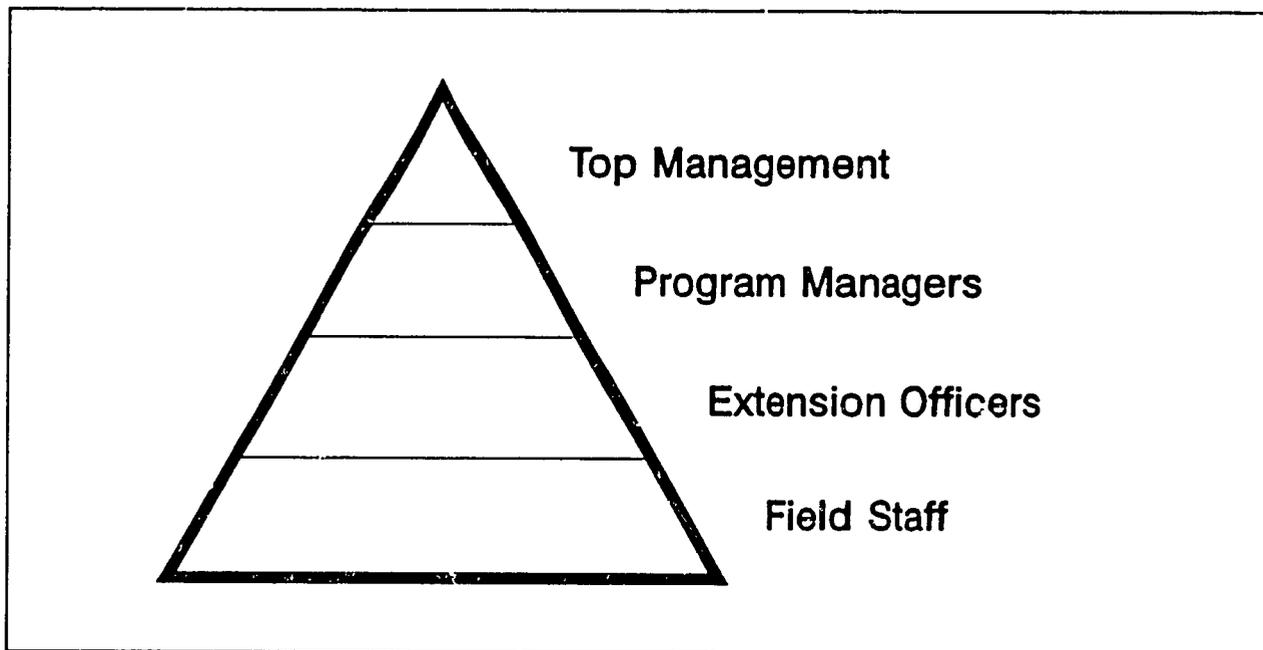


Figure 2. The Reporting Pyramid

The level of detail required increases as the level of interaction with the client increases. This can be seen in Figure 2, which shows that top managers should receive, on a routine basis, concise reports

containing very little detail that quickly convey the status of the overall program, while individual field officers need a great deal of information about their specific client operations.

Under the WEDP MIS system, top management will regularly receive two reports: a Monthly Activity Report and a Monthly Status Report.² These contain information on a set of indicators that provide a quick, focused, yet comprehensive, overview of the program. In reality, even this set of indicators is too exhaustive to focus top management attention on the real issues facing the program. With experience, WEDP should be able to identify a maximum of 20 "key" indicators that convey the status of the most critical program elements.

These two top management reports are backed up by supplemental, detailed reports, that can be used to explore issues in greater depth. These detailed reports would normally be used by the program managers in the home office. An officer can, on a monthly basis, review the status of these indicators for a given centre, or can compare all centres on a single indicator.

At the extension officer level, in addition to receiving the overview information for the centre, the extension officer would also receive reports detailing performance by individual field officers. This can be used to focus attention and help officers that are not meeting established targets, or that have particular delinquency problems.

The field officers receive detailed information on the individual groups and clients they are assisting, to better focus follow-up collection and assistance.

Other reports, covering delinquency and other specific program operations, are produced as need to support specific operational requirements.

This system will permit WEDP to identify which centres are performing well, and which are failing to meet targets. It will also be possible to rank officers on the basis of their performance, which is essential for any eventual incentive bonus scheme. But most important, it allows management to identify problems quickly and easily, and then concentrate on problem areas at the detail level.

F. Development Work Remaining

As originally envisioned, the system would be completed on October 1, closely supported by BRAC during a three-month initiation phase until December 31, and then maintained by BRAC on a less intensive basis for an additional year. Two changes make it necessary to revise this schedule:

- First, the decision to delay the direct lending component of the project until January 1 means that we will not have had the opportunity to conduct the acceptance tests on that part of the system. Furthermore, the original plans called for close supervision through December 31, and would not cover the critical phase of initiating direct lending.
- Second, the heavy focus of the system development effort has been to make the loans system and procedures operational. The accounting firm contracted for WEDP has

²See Annex A for these reports.

still not provided the accounting standards for integrating the system to WEDP's accounting program, so this component of the system has not been developed. Furthermore, we have not yet focused on the actual impact assessment and AID reporting forms.

Accordingly, it will be necessary for BRAC to be involved in a more extended phase of close supervision to complete important elements of the overall system design and ensure the proper implementation and operation of the system by WEDP personnel. This will involve work to complete the development and testing of the system; incorporate and provide assistance to WEDP in implementing the direct lending program; installing an accounting module; and expanding the impact monitoring capability to meet AID reporting requirements.

In addition, BRAC has been asked to incorporate a number of specific enhancements into the system, including:

- An "Estimated Birth Year" field, or some other similar easy way to calculate present age, that would be calculated by subtracting the reported age from the current year;
- The ability to identify both the officer who made the original loan and the officer who is currently responsible for supervising it;
- An ability for the user to select the "Client Demographic Reports" for different periods of time, including: (a) all clients, regardless of when they became clients; (b) clients registered in a specific month of a specific year; (c) clients registered during a specific 3-month or 6-month period; (d) cumulative, this year from January to present date; and (e) cumulative, this year from July 1 to present date, for WEDP fiscal year reports;
- An ability to produce the "Monthly Statistical Reports" on the basis of AID's fiscal year, WEDP's fiscal year, and calendar year;
- A definite plan and set of procedures for Backup, Recovery, and Disaster Recovery;
- A report showing the distribution of clients by the number of loans they have had (1, 2, 3, 4, or more), and the amount of loans granted distributed by the number of loans the clients have had;
- Additional flexibility in the payment schedules, including the ability to "round up" payments, with the final payment being less than the preceding amounts;
- Continued improvement of the "ergonomics" of the system -- so that it feels and acts completely normal to the user; and
- An alternative form of collecting payments, just in case the WEDP officers absolutely cannot manage the collections, data entry and printing of new collection forms the way the system is designed to work.

WEDP should consider contracting BRAC to provide data entry services for inputting the heavy load of initial client identification and baseline data forms.

G. Major Concerns and Issues

There are two major issues facing the MIS at this time. The first is WEDP's ability to dedicate the resources and effort required to manage and operate the system successfully. The second is maintaining BRAC's involvement in close supervision of the implementation during the October 1, 1994, through March 31, 1995, period.

Managing and Operating the System

1. Managing Collections

The major function of the MIS is to help WEDP manage the collections process. It is designed so that each officer will have, at the time of each collection, a carefully organized collection form containing the names of the individuals who owe money and the amounts they owe (including any overdues). The collection forms will be organized by officer, by collection date, and by group.³ The officer will not have to manually transfer any amounts or add overdues to the list in order to arrive at the amount to be collected; such actions only increase the number of errors. The officer records only variances in the amounts actually collected, and the total amount collected. For this to happen, WEDP head office must deliver the current period collection forms to each field office prior to the collection date. That this occurs in this fashion is critical to the overall success of the program.

2. Synchronizing Collections and Data Processing

For the collection form to be available to the officer in time to make collections, data from the most recent collection must be entered into the computer, the amounts owed updated, and the form returned to the Centre prior to the next collection date. If it takes two weeks to process the collections and return the new collection forms, the forms from a given collection must be received in the head office at least two weeks prior to the next payment date. This is why, even on monthly payments, the forms cannot be held in the centres until the end of the month -- it would not be possible to process the data, prepare the new forms and return them to the Centre before the next collection date on the first of the following month.

For monthly collections, therefore, the payments collected during the first fortnight must be sent into the head office at the end of that fortnight, so they can be processed and returned to the field by the first of the following month. While these forms are being processed, the centre makes its collections for the second fortnight and returns those forms to the head office by the end of the month so that they can be processed and the new collection forms returned to the centre by the beginning of the second fortnight of the following month.

If WEDP chooses to implement fortnightly collections the entire process must be accelerated, with forms sent into the head office weekly and processed and returned to the field during the next week. If this schedule cannot be met, payments cannot be collected fortnightly.

³Individual clients with payments due on a given date will be "grouped" on a single collection form.

3. Courier Services

It will be necessary to arrange the services of a courier service to collect completed forms from the Centres and transmit new forms to the Centres on a regular basis. For monthly collections the courier must BOTH pick up and deliver forms on a fortnightly basis. For fortnightly collections the courier must BOTH pick up and deliver forms on a weekly basis.

4. Processing Collections

It is important that WEDP manage the data processing activity carefully, and within a very tight timeframe. There is no room for errors or delays. This involves several steps:

- First, WEDP must know what forms should arrive in a given period. The computer should generate a checklist of expected forms.
- Second, A WEDP officer must check to make sure that all forms have been received, and must initiate any required actions to obtain missing forms.
- Third, prior to data entry someone needs to scan the forms for accuracy, to identify any problems and resolve them prior to data entry.
- Fourth, the data must be entered on the computer.
- Fifth, the data entry must be checked and verified to ensure accuracy.
- Sixth, the new collection forms must be generated.
- Seventh, the new collection forms must be sent via courier to arrive prior to the next scheduled collection date.

To carry this out, WEDP needs to organize the data processing as an operational department, with an officer in charge. This officer needs to be responsible for ensuring the accuracy and timeliness of the data processing function -- assuring that all forms have been received and processed within the established timeframe, that all reports are produced and distributed on schedule, and that the new collection forms are produced and returned to the field on schedule. BRAC will assist this process during the first few months.

5. Equipment and Facilities

At the present time WEDP does not have sufficient computer equipment to handle the heavy initial data entry load. During the next three months it will be necessary to enter a large amount of data on existing clients and loans. After that information is entered the amount of data entry should decline considerably. Perhaps WEDP can contract with BRAC to assist with initial data entry.

Equipment and facilities must reflect the requirements of meeting the scheduled deadlines; that is, WEDP must have sufficient computers and data entry personnel to ensure that all data is processed within the specified time frames. The need for adding computers and personnel must be identified with sufficient lead time to procure the equipment and hire/train the personnel prior to encountering

delays in the processing. In the immediate future WEDP needs to add one computer and a cartridge tape drive to back up the data entered on the computer. Also, in the very near future WEDP needs to add network capabilities. The central database must, in fact, be kept in a single, shared-file system. This is not possible with individual, stand-alone computers. A relatively simple peer-to-peer network (such as Simply LANtastic) is probably all that WEDP requires in the way of a network (instead of the much more complicated Novell networks).

The computer facilities also need to be equipped to handle the workflow. An adequate number of desks, bookcases, paper storage cabinets, sorting bins and supplies must be installed to permit proper processing of the data.

6. Personnel

Operating the system requires personnel. WEDP must have a sufficient number of trained data entry personnel to enter data within the processing cycle. It must also have staff to manage the workflow, test the quality of data received from the field and the data entered into the computer, and manage the transmission of documents to and from the field.

BRAC's Future Involvement

BRAC's active involvement during the initial implementation phase is critical to the long-term success of the MIS. This involvement is necessary to ensure that all problems encountered during the process of operating the system are corrected, that all WEDP personnel understand the importance and functioning of the MIS system, and that proper procedures for handling the data are in place and being followed.

This will require close supervision and support for a period of not less than 6 months -- three months to install and operate the current system in all branches, and three months to initiate and insure proper operation of the direct lending program.

If the WEDP buy-in to the GENESYS project is extended to April 4, the current PACD for the GENESYS project, the buy-in can be used to subcontract BRAC's services during this critical implementation phase. If it is not extended, WEDP and USAID/Bangladesh must find a way to contract these services directly from BRAC. Otherwise, the MIS will have little chance of succeeding.

H. Recommendations

Collection Frequency

At the present time WEDP collects payments on a monthly basis. There is discussion of accelerating that to biweekly, or fortnightly, collections. I strongly recommend that WEDP maintain its currently

monthly payment schedule until the MIS system is fully installed, tested, and working smoothly. Once the system is fully operational, WEDP can decide whether or not to proceed to fortnightly collections.

Transmission of Data from and to the Field Offices

The new MIS system will only function properly (successfully) if data are obtained from the field, and new forms generated and returned to the field on a timely basis.

It is important to recognize that, if collections are to be made monthly, completed forms must be collected from the field, processed, and returned to the field within the month. On the other hand, if collections are to be made fortnightly, completed forms must be collected from the field, processed, and returned to the field within the fortnight. This fact has strong implications for operations in both the field and in the home office.

For monthly collections there must be a fortnightly collection and return of forms to the field. This means that the field could work on collecting funds for two weeks. At the end of the two weeks all of the completed forms would have to be sent into the home office. They would be processed during the next two weeks, and the new collection forms returned to the field prior to the beginning of the next collection cycle. For fortnightly collections, however, forms must be collected from the field and returned on a weekly basis. There would be one week of collections, one week of processing, and a return of the new collection forms before the beginning of the next collection period.

WEDP must take appropriate steps to ensure the collection of completed forms from the field and the return of new collection forms to the field on a timely basis. If WEDP chooses a monthly collection cycle, then WEDP must arrange reliable biweekly courier communications with each center. If WEDP chooses to implement a biweekly collection period, the WEDP must arrange reliable weekly courier communications with each center.

WEDP must provide a budget and have formal procedures for accomplishing this data transfer process prior to implementing the MIS.

System Implementation

The system that has been developed is due to be installed and implemented in WEDP beginning October 1. From the beginning, the workplan recognized that this would require continued close supervision and support from BRAC, to ensure that WEDP personnel understand how to operate the system correctly and to correct any problems that might arise. The workplan limited the initial contract with BRAC to designing the system because of the expiration date of the GENESYS contract. It is crucial that funding to BRAC be continued to ensure the successful implementation of the WEDP MIS. Any lapse in support will almost certainly doom the system to failure.

- Provide close supervision during the October 1 through December 31 period to ensure that WEDP implements the system correctly (this is, in fact, the training called for in the scope of work);

- Provide an additional two to three months of close supervision during the initial period of direct lending;
- Develop the training manual (this should be in Bangla rather than English, though it could be in both); and
- install an accounting system and interface the loans MIS to that accounting system;
- Provide maintenance support for the system during the remainder of 1995.

If the GENESYS contract is extended, funds remaining in the buy-in could be used to fund these activities. If not the Mission, through WEDP, must fund a direct contract with BRAC to cover these items. Sole-source selection of BRAC can be justified because it owns the software being developed for WEDP, and because it has unique knowledge of the program structure, design and programming, as well as knowledge of WEDP requirements and operating practices.

The Accounting System

No work has yet been done on the accounting system. To date the accounting firm has not produced a report listing the requirements for the system or the chart of accounts for WEDP. Once that report becomes available, BRAC should be contracted to modify their own accounting system to meet the requirements specified by the accounting firm, and to develop and install that modified accounting system for WEDP.

Future Facilities and Equipment Needs

Equipment and facilities must reflect the requirements of meeting the scheduled deadlines; that is, WEDP must have sufficient computers and data entry personnel to ensure that all data is processed within the specified time frames. The need for adding computers and personnel must be identified with sufficient lead time to procure the equipment and hire/train the personnel prior to encountering delays in the processing.

The MIS report submitted in June 1994 listed a recommended equipment configuration for WEDP. This called for:

- a. computers -- a server with three additional workstations. At a minimum:
 - the server should be a Pentium-chip (586) computer with at least 30 megabytes of RAM memory, operating at 66 to 100 mhz, with 500 to 1,000 MB of hard disk storage, and a magnetic tape backup.
 - the workstations should be 486 computers operating at 33 to 50 mhz, with at least 8 MB of memory and 200 MB hard disks, and SVGA color monitors.
- b. printers -- at least 2 HP Laserjet 4si printers (or equivalent)

- c. LAN hardware -- as appropriate (This probably should start off as an Ethernet "Thinnet" system, which will allow for future expansion, with all necessary cards, cabling and connectors.
- d. One UPS for the main server, and voltage stabilizers for the other computers.
- e. Basic Operating Software -- DOS 6.2, Windows 3.1, Network software, spreadsheet software, database software (FoxBase or Clipper -- depending on the system used by the software development consultant), graphics software, utilities software, and a Bangla-capable spreadsheet program.

WEDP has purchased one additional computer and an HP Laserjet IVsi printer. In the immediate future WEDP needs to add at least one more computer and a cartridge tape drive to back up WEDP data. The next computer should have the capabilities and characteristics of the server recommended in the original report, although it should be possible for this computer to serve both as a server and as a workstation. The single printer purchase to date should be adequate in the near term.

Also in the very near future, WEDP needs to add network capabilities; the central database must, in fact, be kept in a single, shared-file system, and this is not possible with individual, stand-alone computers. A relatively simple peer-to-peer network (such as Simply LANtastic) is probably all that WEDP requires in the way of a network (instead of the much more complicated Novell networks, which require dedicated servers). An article from PC Magazine on peer-to-peer LAN networks is attached to this report as Annex B.

The computer facilities also need to be planned and equipped to handle the workflow. Additional space is needed, and the room should be well lighted and air conditioned. Also, an adequate number of desks, bookcases, paper storage cabinets, and sorting bins must be installed to permit proper processing and handling of the data. Finally, an adequate supply of floppy disks, printer paper (both normal and extra long -- of a good quality), toner cartridges, folders, clips, and other supplies need to be purchased and stored.

Continuing Expatriate Assistance

Additional expatriate technical assistance for the MIS system would be advisable to ensure that the final system, as installed and implemented, meets all of WEDP's MIS requirements. The scope of work should encompass the following:

- review the system and user documentation and the training results;
- Conduct an acceptance test of the direct lending and accounting modules, ensuring their proper integration to the credit and accounting systems;
- Prepare final designs for AID reporting and impact monitoring; and
- Prepare a final report summarizing the system.

Carrying out this scope of work will require approximately 10 days of US-based time and 3 to 4 weeks of Dhaka-based time. Five days of the US-based time would be spent prior to the next visit --

reviewing documents, preparing specifications for the monitoring reports, and providing periodic guidance and feedback to BRAC as they develop the system. The work in Dhaka would be spent conducting the acceptance tests and working with BRAC to overcome any problems or enhancements. The final 5 days would be spent preparing the final report.

ANNEX A

MONTHLY ACTIVITY REPORT

Month of _____, 199_

Date Prepared: _____

This Month			Indicators	Year to Date		
Planned	Actual	Variance		Planned	Actual	Variance
-	-	-	<u>I. Groups</u>	-	-	-
-	-	-	1. Number Formed	-	-	-
-	-	-	2. Number Closed	-	-	-
-	-	-	<u>J. Clients</u>	-	-	-
-	-	-	1. Number of New Clients Registered	-	-	-
-	-	-	a. Group Members	-	-	-
-	-	-	b. Individual Clients	-	-	-
-	-	-	c. Total	-	-	-
-	-	-	2. Number of Clients Withdrawn	-	-	-
-	-	-	a. Group Members	-	-	-
-	-	-	b. Individual Clients	-	-	-
-	-	-	c. Total	-	-	-
-	-	-	<u>K. Loan Numbers</u>	-	-	-
-	-	-	1. Number of Applications Received	-	-	-
-	-	-	2. Number of Loans Sanctioned	-	-	-
-	-	-	3. Number of Loans Disbursed	-	-	-
-	-	-	<u>L. Loan Amounts</u>	-	-	-
-	-	-	1. Amount of Loan Applications	-	-	-
-	-	-	2. Amount of Loans Sanctioned	-	-	-
-	-	-	3. Loan Amount Disbursed	-	-	-
-	-	-	<u>M. Collections</u>	-	-	-
-	-	-	1. Number of Performing Loans	-	-	-
-	-	-	2. Number of Non-Performing Loans	-	-	-
-	-	-	3. Amount Collected	-	-	-
-	-	-	4. Amount Collected/Amount Due	-	-	-

This Month			Indicators	Year to Date		
Planned	Actual	Variance		Planned	Actual	Variance
			<u>N. Training</u>			
-	-	-	1. Number of Courses Held	-	-	-
-	-	-	2. Number of Trainees	-	-	-
			<u>O. Other</u>			
-	-	-	1. Projects Prepared and Appraised (#)	-	-	-
-	-	-	2. Project Supervisions Performed (#)	-	-	-
-	-	-	3. Trainees Supervised (#)	-	-	-
-	-	-	4. Loan Recovery Inspections Performed (#)	-	-	-
-	-	-	5. Inactive/Sick Units Inspected (#)	-	-	-
-	-	-	6. Technical Information Exchanged (#)	-	-	-
-	-	-	7. Estimated Number of Jobs Created	-	-	-

MONTHLY STATUS REPORT

Month of _____, 199_

Date Prepared: _____

Month to Month			Indicators	Year to Year		
Last Month	This Month	Change		Last Year	This Year	Change
			<u>P. Cumulative Statistics</u>			
-	-	-	1. Number of Clients registered	-	-	-
-	-	-	a. Individual	-	-	-
-	-	-	b. Group	-	-	-
-	-	-	c. Total	-	-	-
-	-	-	2. Number of Loans Disbursed	-	-	-
-	-	-	3. Amount of Loans Disbursed	-	-	-
-	-	-	4. Number of Training Courses Held	-	-	-
-	-	-	5. Number of Entrepreneurs Trained	-	-	-
			<u>Q. Clients and Groups</u>			
-	-	-	1. Number of Active Groups	-	-	-
-	-	-	2. Number of Active Group Clients	-	-	-
-	-	-	3. Number of Active Individual Clients	-	-	-
-	-	-	4. Total Number of Active Clients	-	-	-
-	-	-	5. Number of Clients with Active Loans	-	-	-
-	-	-	6. Number of Clients with Performing Loans	-	-	-
			<u>R. Loans*</u>			
-	-	-	1. Number of Applications Received	-	-	-
-	-	-	2. Number of Loans Sanctioned	-	-	-
-	-	-	3. Number of Loans Disbursed	-	-	-
-	-	-	4. Amount of Loan Applications	-	-	-
-	-	-	5. Amount of Loans Sanctioned	-	-	-
-	-	-	6. Loan Amount Disbursed	-	-	-
			<u>S. Portfolio</u>			
-	-	-	1. Total Loans Outstanding	-	-	-
-	-	-	2. Current Portfolio	-	-	-
-	-	-	3. Portfolio Quality Index	-	-	-

Month to Month			Indicators	Year to Year		
Last Month	This Month	Change		Last Year	This Year	Change
			<u>T. Delinquency</u>			
-	-	-	1. Installments Overdue	-	-	-
-	-	-	a. Interest Not Collected	-	-	-
-	-	-	b. Principal Not Collected	-	-	-
-	-	-	c. Total Not Collected	-	-	-
-	-	-	2. Balances of Overdue Loans	-	-	-
-	-	-	3. Delinquency Rate (on Installments)	-	-	-
-	-	-	4. Delinquency Rate (on Balances)	-	-	-
			<u>U. Training*</u>			
-	-	-	1. Number of Courses Held	-	-	-
-	-	-	2. Number of Trainees	-	-	-
			<u>V. Efficiency</u>			
-	-	-	1. Number of Clients per Center	-	-	-
-	-	-	2. Number of Active Loans per Centre	-	-	-
-	-	-	3. Active Loan Balances per Centre	-	-	-
-	-	-	4. Number of Clients per Officer	-	-	-
-	-	-	5. Number of Active Loans per Officer	-	-	-
-	-	-	6. Active Loan Balances per Officer	-	-	-
			<u>W. Other*</u>			
-	-	-	1. Projects Prepared and Appraised (#)	-	-	-
-	-	-	2. Project Supervisions Performed (#)	-	-	-
-	-	-	3. Trainees Supervised (#)	-	-	-
-	-	-	4. Loan Recovery Inspections Performed (#)	-	-	-
-	-	-	5. Inactive/Sick Units Inspected (#)	-	-	-
-	-	-	6. Technical Information Exchanged (#)	-	-	-
-	-	-	7. Estimated Number of Jobs Created	-	-	-

*These items are cumulative-year-to-date in the Year-to-Year columns

ANNEX B

Making the Best of Peer Connections

TEST DRIVE ▶

Everyone is doing it. Getting connected. Networking. And the marketing messages are so seductive:

"Finally, networking is simple for small groups."

"This is the fastest network you can buy off the shelf. It's also the easiest to install."

Already 51 percent of the PCs used by business, education, and government in North America are connected to a local area network, or LAN, according to Marty Palka, principal networking analyst with the Dataquest research firm in San Jose, California. That number is expected to grow to 85 percent by 1998. However, most of these LANs are seething snake pits of cables and hydra-headed servers that require network acolytes to install and service them.

Networking by the People, for the People

In contrast, peer-to-peer networks are far simpler and cheaper—and paradoxically less broadly used. Only about 27 percent of small office/home office sites—the primary domain of peer LANs—have networks, according to Palka. Yet a peer network offers many of the advantages of a server-based LAN: Every computer can share resources such as files, schedules, and printers, and you can run electronic mail and work-group software. Because peer nets are less complex than server-based LANs, they are ideal for proprietors of small to medium-size businesses or for departmental managers in



NETWORKING IN HIS OFFICE: Surrounded by a plethora of peer networks, Senior Editor Joe Abernathy finds that making the right connections can be frustrating.

larger firms. In addition, you don't need to hire a systems administrator.

And the truth behind the marketing hype? Well, peer networks have some disadvantages compared with server-based LANs. Know that the more systems you connect on a peer network, the worse the performance; heavy LAN usage can bring an office to a standstill. With a server, a dedicated high-performance PC handles the network activity. Another hitch: You can't always connect PCs over the distance you can with server-based LANs; in some cases the maximum is 200 feet. You may also be restricted to connecting as few as 30 PCs. Server LANs can accommodate thousands of users and can cover a much wider area.

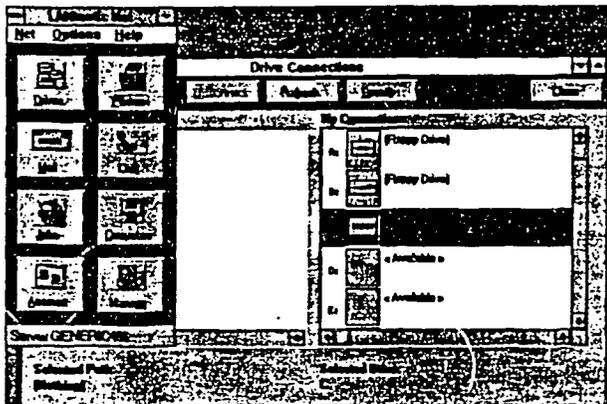
Why install a peer-to-peer network? Why install any network? Time and money. With a network, you can share resources such as database files and printers. Users will also benefit from E-mail, cen-

tralized backup, the ability to harness work-group applications, and with certain networks, the ability to access external resources such as the Internet.

How We Did This to Ourselves

We wanted a real-life office experience, so we set up a test-bed made up of six PCs and two notebook computers: The PCs consisted of an IBM clone running a Cyrix 386-25 to 486-50 upgrade chip, a Gateway 2000 486-66, a Zeos Pantera 66-MHz Pentium, a DECpc LPx 566 Pentium, a Compaq XL 60-MHz Pentium, and a Dell OmniPlex 486/100.

Only the Zeos and Compaq included adapter cards, so we laid in a stock of popular cards ranging in price from \$50 to \$200: Novell's NE2000 Ethernet, 3Com's EtherLink III, and Intel's EtherExpress 16. To tie in notebooks from Texas Instruments and Compaq, we used the 3Com EtherLink III PCMCIA adapter and a Xircom CreditCard Ethernet CE-10B2 adapter.



ARTISOFT'S LANTASTIC is the most expandable, easy-to-install peer network—though linking to NetWare proved a bear.

21

Continued from page 64

Only Coactive Connector and Simply LANtastic include cabling (owing to their proprietary nature, they must provide their own cabling), so we ran to the store and bought a supply of 10Base2 (thinnet) coaxial cables, terminators, and T-connectors. (Twisted pair, or 10BaseT, is generally used only in larger, server-based networks. 10Base2 lets you run a maximum of 800 feet of cabling, although you can buy repeaters to increase the reach. The proprietary Simply LANtastic, on the other hand, reaches only 200 feet.) Plan on spending \$10 to \$15 per PC.

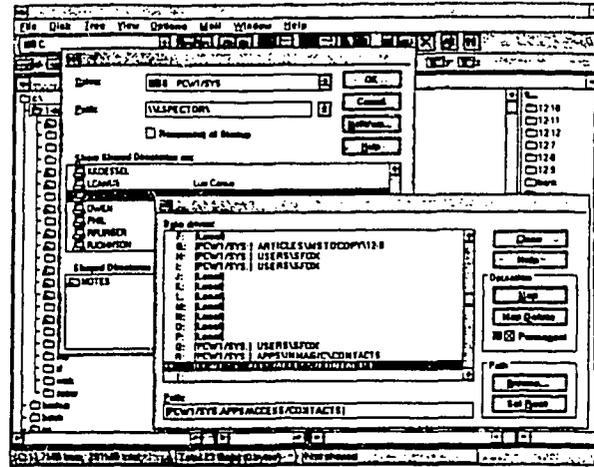
The internal network adapters from 3Com and Intel installed without difficulty—we used a simple software-based setup procedure instead of having to set jumpers or dip switches. The jumper-based NE2000 adapters were a headache and didn't work in the Gateway, Cyrix, and DEC PCs.

Microsoft Windows for Workgroups 3.11

Much as we hate to admit it, we found that in an all-Windows network, nothing beats Microsoft's Windows for Workgroups 3.11 for working with any other DOS or Windows installation, including beta versions of Windows 4.0 (Chicago) and Windows NT 3.5 (dubbed Daytona). Less positive was

our experience in trying to configure Windows for Workgroups. While it automatically detected the network adapter on many of our test machines, other systems using the Novell NE2000 Ethernet adapter locked up until we downloaded a new driver from the Microsoft bulletin board (call 206/936-6735). Also, we found that Windows would lock up while loading if the network was not properly terminated; if you don't have a cable hooked up to the NE2000 card, then you will need to attach two terminators to the T-connector.

Windows for Workgroups is the only product here to support protected-mode Microsoft NDIS 3.0, the latest Microsoft network driver spec, which requires only 4K of conventional memory and runs faster than real-mode NDIS 2.0 drivers. Most popular network adapters are supported through bundled NDIS drivers; installing third-party drivers is usually a snap. Windows for Workgroups also works with Novell IPX and ODI drivers, allowing tight



CONFIGURATION HASSLES dogged our installation of Windows for Workgroups, though it excels at Windows connectivity.

integration with Novell NetWare server Compatibility with TCP/IP (Transmission Control Protocol/Internet Protocol), the lingua franca of the Internet, is available as an add-on. Connectivity with Windows NT and the Workgroup Add-On for MS-DOS—which adds workstation and server capabilities to DOS machines—is excellent.

Microsoft Windows NT 3.5

Windows NT? Not Today. Not Tomorrow. Nice Try. No Thanks.

You've heard the jibes from competitors. But that was then, and this is now.

NT: New Technology. We're ready to concede that this version of Windows rocks like no other—even after spending four days treating a hard drive cancer caused by a bug in the file system of the 3.5 beta version of NT. It's faster than release 3.1 and supports high-end features such as preemptive multitasking, crash protection, and multiprocessors. Unlike 3.11, NT uses its own drivers and works with most popular adapters.

It offers networking that's compatible with Windows for Workgroups and supports a wide variety of non-Microsoft protocols, including IPX and TCP/IP, making it possible to connect to just about anything on your network—or external to your network, such as the Internet. If your business grows, you can expand

Road Map to Choosing a Network

Are you networking a small office or home office?

Do you need to share files or printers among Macintoshes and PCs?

Do you want to avoid opening your PC?

Do you want ethernet speed without the hassle?

Do you need ethernet?

Are you building a new network for a medium-size office or work group?

Will you be connecting only DOS and Windows PCs?

Will you need to share files or printers among Macintoshes and PCs?

Will you need connectivity with UNIX or proprietary workstations?

Are you adding peer-to-peer capabilities to a server-based LAN?

Are all workstations running Windows?

Are some workstations running DOS?

Coactive Connector

Simply LANtastic starter kit

Windows for Workgroups, Windows NT, Workgroup Add-On for MS-DOS, Intel EtherExpress or 3Com EtherLink III adapter

LANtastic with LANtastic for Macintosh

LANtastic with LANtastic for TCP/IP

Windows for Workgroups or Windows NT

LANtastic or Novell Personal NetWare

22

Continued from page 66

to a server-based LAN with Windows NT Advanced Server. This scheme also provides Macintosh connectivity and a variety of other enhancements. NT still requires 12MB of RAM, although we strongly recommend 16MB.

NT was fairly easy to bring online, but the hours I spent on the telephone with Microsoft's software engineers were not enough to establish a connection to the Internet using PPP (Point to Point Protocol) and TCP/IP. However, when it comes to performance, NT is what Windows 3.1 should have been.

Performance Technology Powerlan 3.0

Powerlan is a powerful peer-to-peer networking package with a few shortcomings. It provides full support for both DOS and Windows, and its DOS memory requirements (up to 76K) are acceptable.

The documentation is weak, however, and if you venture beyond Performance Technology's proprietary adapter drivers, installation becomes a challenge. While it is possible to integrate Powerlan with Microsoft networks, such as Windows for Workgroups and Windows NT, most people will need assistance to make this work. Powerlan cannot browse resources on Microsoft networks, so in order to interact with devices on the net, you have to know the name of the machine or the printer you want to use.

The key installation trip wire we found also affected the installation of LANtastic 6.0: To get the LAN up and running, you

have to load MSCDEX, Microsoft's CD ROM driver, after loading the network drivers—not an intuitive act.

Artisoft LANtastic 6.0

LANtastic 6.0 is without question the most expandable peer-to-peer network available for PCs. It includes DOS and Windows-based utilities and provides better integration with Novell NetWare than any product we looked at, including NT. Separate packages allow you to hook into TCP/IP networks and Macintosh systems.

It's easy to get LANtastic up and running when you use a network adapter supported by Artisoft. But when using an NDIS or ODI driver (which is required for interaction with Windows for Workgroups or NetWare), it is not nearly as easy as the marketing fluff on the back of the box makes it sound. We spent several hours on the phone with Artisoft's technical support department trying to get these drivers to install properly. On the positive side, though, LANtastic requires just an 80K driver to run.

Like Powerlan, LANtastic cannot browse resources on Microsoft networks, and you have to change the order in which MSCDEX loads in your AUTOEXEC.BAT. (By the way, we found that to share a CD ROM drive on any LAN, you must type /S on the

A Who's Who of Peer Networking

Coactive Connector 2.0	Novell, 800/638-9273
Price for 2 nodes:	Reader service no. 784
\$399.95	
Coactive Computing,	Powerlan 3.0
800/727-4273,	Price for 2 nodes: \$198
415/802-1080	Performance Technology,
Reader service no. 782	800/327-8526
	Reader service no. 785
LANtastic 6.0	Windows for
Price for 2 nodes:	Workgroups 3.11
\$459	Price for 2 nodes:
Simply LANtastic 5.1	\$439.90
Price for 2 nodes: \$299	Windows NT 3.5
Artisoft, 800/233-5564	Price for 2 nodes:
Reader service no. 783	\$990
	Microsoft, 800/426-9400
Personal NetWare 1.0	Reader service no. 786
Price for 2 nodes: \$198	

MSCDEX command line in your AUTOEXEC.BAT file.)

Artisoft provides an upgrade path for growing your peer-to-peer network into a server-based LAN, or for operating one in parallel in a large company, via its CorStream Server product. CorStream is essentially a version of Novell NetWare 4.01 capable of working seamlessly with LANtastic 5.0 and 6.0 clients. This compatibility makes it possible for you to add a server to the peer network without disturbing the workstations. Artisoft also offers separate LANtastic for TCP/IP and LANtastic for Macintosh products.

LANtastic is flexible enough to network

Ares Offers a PCI-VESA Combo PC:

Can't decide on a local bus? Clone maker Ares Microdevelopment of Farmington Hills, Michigan, has a

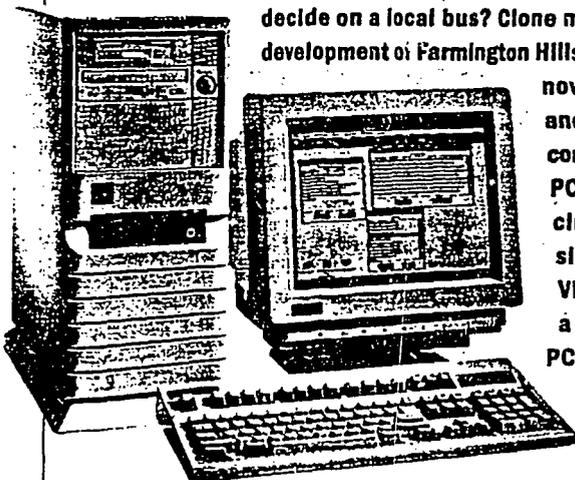
novel solution—PCI and VESA in a single computer. Ares's new PCI-VESA system includes six free bus slots: two PCI, one VESA, two ISA, and a combination ISA-PCI. (The system includes one extra PCI slot that

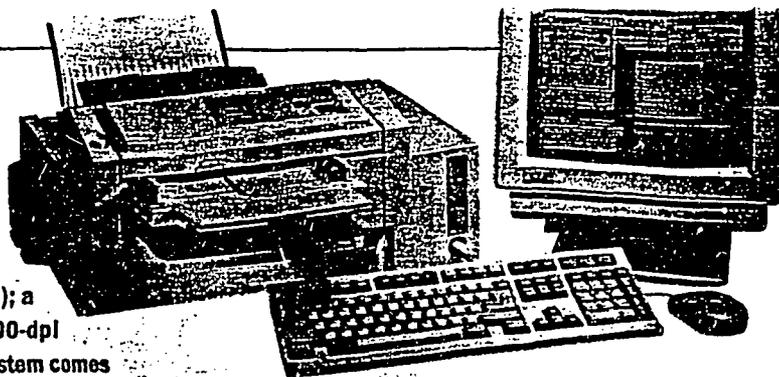
holds a Genoa video accelerator card and one additional VESA slot with a hard drive controller.)

The Ares PCI-VESA system comes in a variety of configurations. A \$2195 system includes a 66-MHz 486DX2 processor, 8MB of RAM (upgradable to 128MB), 256K of secondary RAM cache, a 420MB hard drive, a 64-bit PCI video accelerator with 2MB of DRAM, a CD ROM drive, a sound card, speakers, and a 15-inch color monitor.

According to the PC World Test Center, Ares's 66-MHz 486DX2 PCI-VESA system scores slightly above average for its processor class, although about 27 percent slower than the fastest 66-MHz 486DX2 we've tested.

Nevertheless, if you need a system that has the flexibility to handle both VESA and PCI cards, Ares's hybrid PC is worth a look. Ares Microdevelopment, 800/322-3200. Reader service no. 787





All in One: The QMS 2001 Knowledge System PC crams a typical desktop's worth of hardware into one desktop unit: You get a 486SX-33 PC (with 4MB of RAM, a 120MB hard drive, and a 3½-inch floppy drive); a 600-dpi, 6-ppm laser printer; a 400-dpi copier; a 400-dpi scanner; and a 9600-bps fax-modem. The Knowledge System comes with a 14-inch super-VGA monitor, a keyboard, a mouse, and pre-loaded software including Windows. The street price should be \$5000—about what you'd pay if you bought each piece of hardware and software individually.

Convenience and security are the rationale behind the Knowledge System's all-in-one approach. The bundled software makes everyday tasks—such as scanning a document, putting a fax header on it, and sending it—more private. You avoid the hassle of installing peripherals, and you contact just one vendor for all your hardware support. Analysts expect the Knowledge System PC to interest corporate departments (such as legal, human resources, and internal audit) that require above-average privacy, as well as

remote offices that need one unit to handle all office functions.

A major drawback to the Knowledge System: QMS offers no model with a hard drive larger than 120MB, and the maximum RAM is 20MB. For those who want everything but the PC, QMS sells a device that hooks up to your existing PC's parallel port and is street-priced at about \$3000.

This is one of the first of a new crop of multifunction devices that are expected to arrive during the next 12 months, says International Data Corporation senior analyst Marco Boer. Boer expects that these products won't include a PC, will use Ink Jet printers instead of lasers, and will cost under \$2000. QMS, 800/523-2696, 800/777-7782. Reader service no. 788

Continued from page 68

just about any computer. Combined with its TCP/IP support, this solution wins our favor for complex multiplatform networks.

Artisoft Simply LANtastic 5.1

Simply LANtastic is an elegant solution for small and home offices and is the most hassle-free serious networking product in this roundup. Installation is simple: Plug in the proprietary 16-bit adapter cards, connect the cables, and install the software. The process took 15 minutes on two test PCs, and we didn't need the manual. (Coactive Connector installs faster but has a lower level of functionality.) Simply LANtastic supports 200 feet of cabling and 20 PCs.

Novell Personal NetWare 1.0

The only real reason to consider Personal NetWare is if you need to run a peer network that must be tightly integrated with a full server-based NetWare installation. This would be the case if you wanted both inter-departmental peer services and access to a broader array of corporate network resources. Novell recommends connecting five to ten computers. In addition, NetWare has a terrible user interface, it's only slightly less difficult to install than NetWare 3.12, and it requires a hefty 640K of memory.

Coactive Computing Coactive Connector 2.0

The easiest networking product to use, Coactive Connector 2.0 supports primitive

What's Right for You

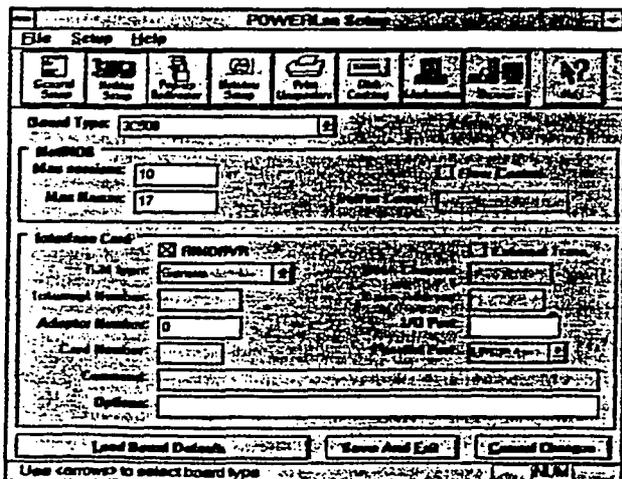
electronic messaging between DOS and Windows systems and printer and file sharing. It installs quickly, plugging into the PC's parallel port, and it works with DOS and Windows PCs and Macs. It connects up to 32 PCs within 1000 feet. A pass-through port lets you attach a parallel printer to the adapter. Shared files must be stored within a central directory, and Coactive is *slow* (26 kilobits per second). But it works.

For a small DOS and Windows installation, Simply LANtastic 5.1 best carries the weight. For an all-Windows network, choose Windows for Workgroups 3.11. For low-level Mac-to-PC connections, consider Coactive Connector. For more robust multiplatform networks, however, LANtastic 6.0 is your best choice.

There are other products and approaches to connecting computers yourself: Rose Electronics makes a powerful line of easy-to-install printer- and resource-sharing devices. Moses Computers' Moses LAN offers a variety of peer-to-peer solutions, from relatively simple file-sharing options to more robust E-mail-capable products.

Finally, if you have an eye on the future, look for a TCP/IP LAN. This type of product provides peer services while giving every machine the capability to act like a traditional server. The next version of Windows, Chicago, is slated to incorporate TCP/IP protocols; and TCP/IP is the native language spoken by most machines on the Internet. IBM offers TCP/IP extensions for both DOS and Windows, LANtastic 6.0 offers optional TCP/IP support, and a robust group of TCP/IP add-on products, led by NetManage's Chameleon, is emerging for Windows, Windows for Workgroups, and Windows NT.

—Jeff Noxon, Joe Abernathy, and Russell Giltman



POWERLAN'S INSTALLATION IS A CHALLENGE if you venture beyond the proprietary drivers, and the documentation is weak.