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MICROCOMPUTER SYSTEM PROPOSAL

DALHOUSIE ARTS CENTRE

Donald Trotter  
April 14, 1986

RECEIVED BY  
D. C. A.

March 17 1987

## MICROCOMPUTER SYSTEM PROPOSAL

### BACKGROUND:

The Dalhousie Arts Centre requested a proposal for a microcomputer system on March 14, 1986 at a meeting attended by Bob Reinholdt and Don Trotter of Administrative Computing.

### SCOPE:

This system is intended to support the administrative functions of the Dalhousie Arts Centre and would be used for the requirements outlined below.

### REQUIREMENTS:

The following requirements were established as the criteria for the proposed system:

1. Maintenance and control of the different tasks and functions required for the various types of bookings of the Cohn Auditorium, the Sir James Dunn Theatre and the other rooms which are available for rent. This includes the entry of new bookings, tracking of staff and materials requirements, updating bookings and making cancellations. This function is required to be expanded in the future for inclusion in a communications network available to the various Arts Centre offices.
2. Maintenance of listings of suppliers, contacts, journal entries and other university related data.
3. Budgeting and cost comparison functions and revenue projections are required for a variety of the Arts Centre offices.
4. Word processing is required for the office with emphasis on mailing lists.
5. Access to the central financial system is desired when this type of information is available to the administrative departments.

The system required by the Dalhousie Arts Centre must have powerful data base manager with a secondary requirement for word processing and spreadsheet software in order to fulfill the above requirements. The memory size required to perform the primary task is large (512K or more) in order to take maximum advantage of the software proposed.

RECOMMENDATION:

The software products recommended to provide the above facilities are dBASE III Plus as the data base manager, Word Perfect (version 4.1) for word processing, Lotus 1-2-3 as the spreadsheet. These products should provide a workable software solution for the requirements and are available as follows:

dBASE III Plus is available from a variety of local dealers at an approximate cost of \$600.

Word Perfect version 4.1 is available from JB Marketing of Canada for \$195.

Lotus 1-2-3 is available from Dalhousie Stationery Stores, approximate cost \$270.

The hardware required for the above systems is an IBM PC-XT which can be acquired from a variety of sources locally. The University has a contract with Computer Innovations through Inter-University Services and Purchasing can order the equipment as specified below from this vendor. The configuration shown is recommended because it offers the best price - performance solution. The approximate cost of this system is \$8000 and a definitive quotation can be obtained from Hugh Creighton at the Microcomputer Information Centre (8893).

The IBM PC-XT with a 20 Megabyte Tandon hard disk drive is recommended because it is necessary to have a hard disk capability for a system of this type; a database manager, word processing and spreadsheet. It is not recommended that an IBM hard disk drive be purchased because they are not price competitive with those available from (and serviced by) the local dealers.

The Quadram Amberchrome monitor (with anti-glare tube) or an equivalent is recommended because of superior resolution - a composite type monitor is not suggested for prolonged use. An IBM monochrome display card (with printer adapter) is recommended unless there is a demonstrated need for graphics, in which case a Hercules monochrome/graphics monitor card is recommended as it provides high resolution graphics and carries a two year warrantee (cost differential is about \$300). The Quadram Quadboard is recommended as the memory expansion card because it contains 384K memory, a serial port for communications, a parallel printer port and a real time clock.

The Epson LQ-1000 printer and tractor feed is recommended because it provides extremely high quality print for a dot matrix printer, has a tractor feed mechanism for using continuous forms and can print graphics generated by Lotus 1-2-3. An alternative to this might be to share the printing facilities of an Apple Laser Writer on your Macintosh using an Apple "Bridge" circuit board in the IBM (cost is approximately \$720 for the board and \$50 for the first 3M of cable and \$50 per 10M thereafter). The cost of a Laser Writer is approximately \$6000. Additional software may be required on the Macintosh to run the Appletalk network.

Version 3.1 of the PC-DOS operating system is also recommended.

#### OTHER CONSIDERATIONS:

**Location:** The system will require a work station area and it is recommended that the printer be placed on a separate table or stand because the printer will shake the monitor if placed on the same surface. It is recommended that the work station be set up separate and apart from existing desks if several people are to access the machine.

**Communications:** A connection to the University's Develcon data switch for access to other University computer resources is available at a cost of \$172 installation charge and \$12.40 per month ongoing phone line and \$17 per month data set charge. Local area networks for this type of equipment are available from a variety of vendors but University Computing and information Services has not as yet made a decision on the network to be supported for administrative users.

**Expandability:** The system as configured should suit the current needs of the Dalhousie Arts Centre but is expandable if required at some future time. There are higher capacity disk drives available if storage becomes a problem and there are enhancement circuit boards available to increase processing speed if necessary. If additional equipment is acquired at some future time, a local area network can be installed which would allow sharing of files, hard disks and printers.

**Supplies:** The system will require supplies for the printer and diskettes to make archive copies from files on the machine. The printer will require ribbons and paper - either single sheet of continuous forms. The cost of these items approximately \$9.00 per ribbon (average consumption 1 per month) and continuous forms paper is available in two grades, thin at \$25.00 per box of 3300 sheets (the perforations are quite obvious but this suitable for drafts) and keen-edge which is \$24.00 for 2300 sheets (the perforations are barely detectable). Paper consumption varies depending upon usage. One box of diskettes is required initially with more necessary as more and more data files require backup. Diskettes are available from stationery stores at a cost of \$18.30 per box.

**Insurance:** The system may require additional insurance coverage and this is the responsibility of the administrative unit.

#### SUPPORT:

After acquisition of the equipment, Administrative Computing Services (Office Systems) is available to provide the following services:

1. Installation and testing of all hardware components.
2. Installation and testing of all software products.
3. Advise on acquisition of appropriate training and obtaining solutions to difficulties with the system.
4. Provide small systems development services for office systems. This is dependant upon system size and available resources.

To: John D. Wilkes  
Director,  
Dalhousie Arts Centre

From : Robert C. Reinholdt  
Technical Operations Director  
Dalhousie Arts Centre

Re: Proposed Automation of Clerical & Technical Activities

In the last five years there has been a very substantial increase in the competition for the theatre and concert going public's dollar in the metro area. At the same time we have seen a significant reduction in the amount of funding available to support all types of university activities, including the operation of the Arts Centre. Given these facts, we are being forced to do more in a more competitive market with less operating resources as is illustrated by the budget reductions of the past five years.

The areas which we must develop in order to compete effectively include:

External to the organization:

1. Reduction of expenditures on outside services.
2. Provision of highest quality service to clients, artists and patrons.
3. Effective identification of, and marketing to, select market segments.

Internal to the organization:

1. Elimination of redundant activities.
2. Elimination of redundant information.
3. Streamlining of information flow.
4. Improved time/space scheduling and tracking.
5. Reduction in time associated with preparatory activities for events.

The following restrictions apply to any solution proposed to the above problem.

1. Must be cost effective
2. Must be acceptable to all users.

Many of the benefits to be achieved will be seen by all areas using the system, while others are specific to activities associated with individual departments. Some of these benefits are:

#### All Areas:

**Centralized storage of event information** (space, costs, dates, personnel and other requirements) will eliminate the distribution and copying of show particulars and the maintenance of multiple schedules. This, in turn, further reduces or eliminates the possibility of incorrect or outdated information being acted upon or distributed to the public.

**Messaging (Electronic Mail)** provides immediate and accurate communication without the time overhead associated with memo distribution and the coordination of meetings or telephone communications.

**Word Processing** High quality correspondence can be produced without the need for multiple retyping of documents. Personalized letters can be automatically created for volume mailings from form letters and mailing lists.

**Casual and Temporary Costing and scheduling** will be improved by directly associating the proposed schedules with actual expenses incurred. This can be used for expense analysis as well as casual employment planning.

#### Public Relations

**Graphics production** will eliminate the need for outside typesetting, and will speed the development and production of all graphics and graphics enhanced materials.

**Market Analysis** can be carried out on a continually developing database of patrons. This will mean that each identified segment of the market (theatre, C&W, Pop, Chamber) can be addressed directly and effectively.

#### Technical Operations

**Automated drafting** will very substantially reduce the time required to produce lighting plots and floor plans associated with shows.

**Facilities and Resource Management**, is enhanced by having all information immediately accessible. Queries and requests regarding personnel, space and equipment, can be acted on quickly and accurately, enhancing our image to the outside, and reducing wait time for other internal staff.

Many less quantifiable but potentially more important benefits will be gained, including employee satisfaction and improved public image. The availability of powerful organizational and graphics tools will result in staff initiated creativity and productivity enhancements.

Appendix 1.

Hardware needs:

4 - Macintosh Plus computers. ( M2503)	\$10908.00
3 - Mac Plus external drives. ( M0131)	1575.00
2 - Imagewriter II with Mac Plus cable. (M2555)	1350.00
2 - Mac Plus Imagewriter cables (M1085)	98.00
5 - Appletalk connector kits. (M2052)	245.00
11 - Appletalk cable kits - 10m. (M2014)	539.00
2 - Hyperdrive 20 Meg.	4300.00
1 - Roland Plotter with cable (11" x 17")	1435.00
1 - MAC 512 TO MACPLUS update	
- Disk drive (M2516)	410.00
- MACPLUS Board (M2518)	982.00
- MACPLUS Keyboard (M2519)	139.00

Software needs:

4 - MACWRITE	200.00
1 - OMNIS 3 Multi-User Database (5-user)	1120.00
1 - MACDRAFT-Automated Drafting	316.00
1 - Videx Mailcentre Messaging	410.00
2 - Hypernet	840.00
1 - MICROSOFT EXCEL - Spreadsheet/Graphics	460.00
1 - MacPlot II	250.00
1 - MICROSOFT WORD	228.00
1 - MICROSOFT FILE	228.00

Sub-total	<u>26033.00</u>
Prov. Tax	<u>2603.30</u>
Total	28636.30

Approximate cost installation, training,  
and Database customization. 2500.00