

**TITLE:** Interactive Multi-Media Computer Information System

**PROGRAM MANAGER:** Thomas L. Peterson

**ORGANIZATION:** Explore Lake County

**ADDRESS:** Route 1, Box 287B, Two Harbors, MN 55616

**WEB SITE ADDRESS:** [www.lakecnty.com](http://www.lakecnty.com)

**LEGAL CITATION:** ML 95, Chp 220, Sec. 19, Subd. 4i

**APPROPRIATION AMOUNT:** \$45,000

#### Statement of Objectives

The purpose of this project is to produce a prototype Multi-Media Interactive Computer Information System that provides individualized information to visitors to Northeastern Minnesota on facilities and attractions to the area at the R.J. Houle Visitor Information Center in Two Harbors. It was not originally an objective of this project to produce a web page but web page production was necessary to complete the project.

#### Overall Project Results

This project was originally envisioned as using the Interactive Program developed by the Minnesota Office of Tourism (MITIS) and customizing it for local use to be placed in a Kiosk at Two Harbors. That system was developed and based on the OS2 (IBM) operating system. It became very difficult to work with developers who could program in OS2 because there were none locally and only a few state-wide. Progress was slow and it soon became apparent that what we visualized was not achievable. The decision was made to discard our OS2-based effort and start again.

A web page was developed for Lake County and that effort was placed (virtually) on the Kiosk at the Visitor Information Center. This approach allows the visitor in Two Harbors to view the web page interactively at the Kiosk without actually going on line. This not only provides the interactive multi-media system we envisioned, but also allows an extended audience to access the information gathered for this project. The Information center welcomes nearly 40,000 visitors per year, the web page receives more than 5,000 requests per week at this time.

#### Project Results Use and Dissemination

As mentioned, nearly 40,000 visitors are welcomed each year at the R.J. Houle Visitor Information Center. More than 5,000 requests are made each week to the Lake County Web Site. In the future, each of the more than 700 Restaurants, Lodging establishments, Retail, and services whose data is disseminated on the Kiosk and web site will be asked to develop and link their own web sites, providing an even richer base of information for those seeking information about Lake County

**Date of Report: July 1, 1997**  
**LCMR Final Work Program Update Report**

**LCMR Work Program 1995**

**1. Project Title and Project Number: Interactive Multi- Media Computer Information System.**  
**ZZ6**

**Program Manager:** Thomas L. Peterson  
**Agency Affiliation:** Explore Lake County, Inc.  
**Mail Address:** Route 1, Box 287-B, Two Harbors, MN 55616  
**Phone:** (218) 834-2643  
**Fax:** None

**A. Legal Citation:** ML 95, Chp. 220, Sec. 19, Subd. 4(l)  
**Total biennial LCMR appropriation:** \$ 45,000.  
**Balance:** \$ 5,721

**Appropriation Language:** This appropriation is from the future resources fund to the Commissioner of Trade and Economic Development, Office of Tourism, for an agreement with Explore Lake County, Inc., to develop a pilot multimedia interactive computer information system at the R. J. Houle Visitor Information Center.

**B. Status of Match Requirement:** N/A  
**Match Required:** \$  
**Amount Committed to Date:** \$  
**Match Spent to Date:** \$

**II. Project Summary:** This proto-type Multi-Media Interactive Computer Information System will provide individualized information to visitors to Northeastern Minnesota on facilities and attractions to the area at the R.J. Houle Visitor Information Center in Two Harbors. It will be an electronic information system that utilizes a full range of video, audio, still pictures, graphics, and text in a dynamic and intuitive presentation context that is both enticing and informative to travelers. The facilities and attractions will include a facility guide to the eleven State Parks in the area, the unique trail systems including hiking, biking, snowmobile, and ski trails, local attractions, services, and events.

This System will be developed with and linked to the Office of Tourism Information statewide data base and Kiosk System and will be designed with continual informational up-grade and down-load capabilities with a locally maintainable data base. It will build on and locally customize the Vacation Advisor Kiosk System currently developed and deployed by the Office of Tourism. Its modular design will permit incremental functional additions without disrupting the integrity of the system.

**III. Six Month Work Program Update Summary:** July 1, 1997 Insurmountable incompatibility problems with the OS2 based multi-media tourism information system developed by the Minnesota Office of Tourism (MITIS) resulted in a complete reprogramming of the system in the Kiosk at the R.J. Houle Visitor Information Center in Two Harbors. The new interactive system is based on web programing. Lake County now has a web page (www.lakecnty.com). A virtual web page has been installed in the Kiosk at the information center (it is not actively on line). The visitor at the Information Center in Two Harbors can view the web page with most of its connections without actually going on line. The web page receives 5,000 requests per week. The Information Center gets 40,000 visitors per year.

**IV. Statement of Objectives:**

- A. System Design:** Work with the Office of Tourism and their advisor in designing a system to be placed at the R.J. Houle Information Center in Two Harbors.
- B. Local Customization:** Compile data on local events, attractions, and services and train staff in data entry and data update.
- C. Procurement:** Procure equipment in conjunction with Office of Tourism and their developer based on system design and available products.
- D. Developer Installation:** All system components will be installed and fully tested on site.

**Timeline for Completion of Objectives:**

	7/95	1/96	6/96	1/97	6/97
System Design	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx				
Local Customization	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx				
Procurement	xxxxx				
Developer Installation	xxxxx				

V. Objectives/Outcome:

A. System Design

**A.1 Activity:** Set minimum specification standards for hardware, software, communication capabilities, kiosk; and site preparation. These standards are to be compatible with both the Office of Tourism Vacation Advisor Kiosk System and local information/presentation needs. Design local program flow diagrams

**A.1.a. Context within the project:** The Office of Tourism and their developer have completed and are updating a statewide Interactive Kiosk System. The system to be developed and placed at the R.J. Houle Visitor Information Center will use this design and be able to communicate with this statewide system. The requirements for this, along with local needs will need to be determined.

**A.1.b. Methods:** The Minnesota Office of Tourism holds rights to the Vacation Advisor System and has an on-going agreement with the developer for modernizing and up-grading this Kiosk System. It is necessary to meet with MOT and their developer to discuss changes in the MOT Advisor to make the system applicable to local presentation needs.

**A.1.c. Materials:** N/A

**A.1.d. Budget:**  
**Total Biennial LCMR Budget:** \$2,000  
**LCMR Balance:** \$ 0

**A.1.e. Timeline:**

	7/95	1/96	6/96	1/97	6/97
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Set Hardware Specs	xxxxx
Determine Networking	xx

requirements	
Finalize local program flow Diagrams	xxxxxxxxxxxxxxxxxxxx
Set site preparation criteria	xxxxx
Select Kiosk Design	xxxxx

**A.1.f. Work program Update:** A virtual web page has been installed at the Visitor Information Center in Two Harbors. The programming is based on web page design. It was discovered that web based programming is more accessible to the public. The actual web page is linked to the Minnesota Office of Tourism's page.

B. Local Customization

**B.1 Activity:** Compile Information on local events, facilities, programs, and services.

**B.1.a. Context within the project:** Although the system to be placed at the R.J. Houle Visitor Information Center will "piggy-back" on the system that will be developed for the Department of Tourism, there are elements that will be included in the local system that will not be included in the statewide system of events, attractions, and accommodations. Information on local events, facilities, programs, services, etc. will need to be gathered and organized to add to those in the statewide system.

**B.1.b. Methods:** Compile data on local events, facilities, and services. That data includes a full range of video, audio, still pictures, graphics, and text. This data will then be supplied to the developer.

**B.1.c. Materials:** Most materials (e.g. video footage) will be supplied by volunteers, but some purchase may be necessary.

**B.1.d. Budget**  
**Total Biennial LCMR Budget:** \$ 22,000  
**LCMR Balance:** \$ 5,721

<b>B.1.e. Timeline:</b>	<b>7/95</b>	<b>1/96</b>	<b>6/96</b>	<b>1/97</b>	<b>6/97</b>
Compile Local Data	xxxxxxxxxxxxxxxxxxxx				
Developer and MOT input on data compilation	xxxxx				
Deliver local data to developer	xxxxxxxxxxxxxxxxxxxx				
Developer incorporates data into System	xxxxxxxxxxxxxxxxxxxx				
Examine and test presentations	xx				
Refine Presentations	xx				

**B.1.f.** Data collectors were hired to update the textual database. This has been accomplished. Continual updates occur through the staff at the VIC. The Interactive system in the Kiosk is updated through the Lake County Web Page.

**B.2 Activity:** Training of local individual(s) in data entry and data update.

**B.2.a. Context within the project:** In order for the system to work efficiently at the R.J. Houle Visitor Information Center, individuals will be needed on site to update the locally maintained database and to ensure communication with the state-wide system.

**B.2.b. Methods:** Train three staff on site in data entry and data update.

**B.2.c. Materials:** N/A - Materials purchased with software.

**B.2.d. Budget:**  
**Total Biennial LCMR Budget:** \$ 2,000  
**LCMR Balance:** \$ 0

<b>B.2.e. Timeline:</b>	<b>7/95</b>	<b>1/96</b>	<b>6/96</b>	<b>1/97</b>	<b>6/97</b>
Training staff in data entry	xxxxxx				
Training staff in multi-media	xxxxxx		xxxxxxxxxxxx		

**B.2.f. Work program Update:** Training was accomplished by developing a

update program through the web site.

## C. Procurement:

**C.1 Activity:** Procure Hardware incorporating latest hardware advances that will be compatible with Office of Tourism's statewide Kiosk System in accordance with minimum specifications. Purchase Software (Data Base, code) for Vacation advisor system

**C.1.a. Context within the project:** The hardware is the device to run the interactive multi-media information system. It is to be purchased to incorporate latest technology available compatible with the statewide Kiosk system and the minimum specifications.

**C.1.b. Methods:** Discussions with MOT and developer about minimum specifications based on available products.

**C.1.c. Materials:** A touch-screen monitor, computer system unit, storage device(s), modem, network server, printer, a Kiosk that conforms with the American Disability Act requirements, and peripheral equipment, will be purchased to be placed at the R.J. Houle Visitor Information Center in Two Harbors. This equipment is the heart of the multi-media information system.

**C.1.c.2.** The equipment purchased will continue to be used at the R.J. Houle Visitor Information Center through its useful life. It will be continually upgraded and be accessible to the public at the Information Center and will be accessible to MOT, other Agencies, and to anyone with communication capabilities.

**C.1.d. Budget**  
**Total LCMR Budget:** \$17,000  
**LCMR Balance:** \$ 0

<b>C.1.e. Timeline:</b>	<b>7/95</b>	<b>1/96</b>	<b>6/96</b>	<b>1/97</b>	<b>6/97</b>
Touch-Screen Computer	xxxxxx				
Storage system	xxxxxx				
Printer	xxxxxx				
Network Server	xxxxxx				
Communications Hardware	xxxxxx				
Kiosk	xxxxxx				
Peripheral equipment	xxxxxx				
Vacation Advisor System	xxxxxx				

**C.1.f. Work program Update:** Two Pentium computer systems, one with a touch-screen for the Kiosk, and one to be used as a server, along with peripheral equipment have been purchased and installed. It was discovered that a system using a trackball instead of a touch screen is better. That system has been installed. Networking is done by Internet.

**D. Installation:**

**D.1 Activity:** Deliver Hardware and set up system

**D.1.a. Context within the project:** With the system designed, customized, and the hardware purchased, the last step to a fully functional system is the delivery and set-up.

**D.1.b. Methods:** Developer will install all system components on site along with any special site customization.

**D.1.c. Materials:** Materials are purchased components and any refinements to the Information Center that are necessary to support this system.

**D.1.d. Budget**  
**Total Biennial LCMR Budget:** \$ 2,000  
**LCMR Balance:** \$ 0

<b>D.1.e. Timeline:</b>	<b>7/95</b>	<b>1/96</b>	<b>6/96</b>	<b>1/97</b>	<b>6/97</b>
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Delivery of System	xxxxx
Set-up of System	xxxxx

**D.1.f. Work program Update:** The kiosk and server systems have been delivered and installed.

**D.2 Activity:** Demonstrate that all Hardware, Software, and inter-system connectivity components are functioning individually and connectively.

**D.2.a. Context within the project:** This is the last step before the system is up and running, the system will not be accepted until it is demonstrated to be fully functional. Local Customization will begin after this initial set up.

**D.2.b. Methods:** Test system accessing all menus and options, observing auto-restart sequences, test data update and print capabilities.

**D.2.c. Materials:** N/A

**D.2.d. Budget**  
**Total LCMR Budget:** \$ N/A  
**LCMR Balance:** \$

<b>D.2.d. Timeline:</b>	<b>7/95</b>	<b>1/96</b>	<b>6/96</b>	<b>1/97</b>	<b>6/97</b>
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Demonstrate functioning System	xxxxx
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**D.2.f. Work program Update:** The system is functioning and is used by visitors to the R. J. Houle Visitor Information Center.

**VI. Evaluation:** Indication that the results of the project have been successful will be evaluated by the ability to provide visitors to the Lake County R. J. Houle Visitor Information Center current information, both visually and in print-out form, on attractions and sites to visit, lodging accommodations and vacancies, restaurants, services and businesses customized to the area and Lake County. The potential impacts of the project will permit the linking of an extremely large geographic area, via the interactive multi-media computer system, to any public or private sector participants, such as businesses, the eleven Minnesota State Parks in the region, the U.S. Forest

Service Ranger Stations, and tourism associations , none of which have been integrated before.

**VII. Context within field:** This system is a proto-type for what hopefully will be many systems linked together with communication hardware. At the present time, both the Office of Tourism and the Department of Transportation have first generation interactive information systems.

**VIII. Budget context:** Minnesota Office of Tourism has spent \$160,000 on their statewide Vacation advisor Kiosk System. Lake County contributes to the upkeep of the R.J. Houle Visitor Information Center.

**IX. Dissemination:** Because this project is viewed as a prototype, it is anticipated that the project will expand continually. It is expected that data will be shared electronically as other sites develop the technology and data to link up. Presentation of materials will be provided both visually and in print-out form.

**X. Time:** The proposed project will be easily completed within the designated two years Timeline.

**XI. Cooperation:** The project has two cooperators: Lake County and Department of Natural Resources, Parks; their roles should be characterized as supportive, and neither shall contribute monetarily or in staff time. The program manager shall be responsible for the time spent on the project.

**XII. Reporting Requirements:** Semiannual six-month Work program update reports will be submitted not later than January 1, 1996, July 1, 1996, January 1, 1997, and a final six-month Work program update and final report by June 30, 1997.

**XIII. REQUIRED ATTACHMENT:**

1. Qualifications:

2. Project Staffing Summary:

## Budget/Schedule

### Objectives:

<b>A. System Design</b>	<b>7/95</b>	<b>1/96</b>	<b>6/96</b>	<b>1/97</b>	<b>Totals</b>
1. Set Hardware Specs	----	----	----	----	
2. Determine Networking requirements	500	----	----	----	500
3. Finalize local program flow diagrams	500	500	500	----	1500
4. Set site preparation criteria	----	----	----	----	
5. Select Kiosk design	----	----	----	----	
Objective Totals	1000	500	500	----	<b>2000</b>

### **B. Local Customization**

#### B.1. Compile information on local events, facilities, programs, and services

1. Compile Local Data	7500	5500	2500	----	15500
2. Developer & MOT input	----	----	----	----	
3. Deliver data to developer	----	----	----	----	
4. Developer incorporates data into system	3500	1000	1000	----	5500
5. Examine and test presentations	----	----	----	----	
6. Refine Presentations	----	-500	-500	----	1000
Objective Totals	11000	7000	4000	----	<b>22000</b>

#### B.2. Local training in data entry and multi-media

1. Training in data entry	500	----	----	----	500
2. Training in multi-media	1500	----	----	----	1500
Objective Totals	2000	----	----	----	<b>2000</b>

### **C. Procurement**

1. Touch-screen computer	5000	----	----	----	5000
2. Storage System	----	----	----	----	
3. Printer	2000	----	----	----	2000
4. Network Server	3000	----	----	----	3000
5. Communications Hardware	200	----	----	----	200
6. Kiosk	1000	----	----	----	1000
7. Peripheral equipment	1800	----	----	----	1800
8. Vacation Advisor System (Software, data base,etc.)	4000	----	----	----	4000
Objective Totals	17000	----	----	----	<b>17000</b>

## D. Installation

### D.1. Deliver Hardware and Set up system

1. Delivery of System	----	----	----	----
2. Set-up of System	2000	----	----	----
Objective Totals	2000	----	----	----
				<b>2000</b>

### D.2. Demonstrate that all Hardware, Software, and inter-system connectivity components are functioning individually and connectively.

Demonstrate functioning System	----	----	----	----
Objective Totals	----	----	----	----
<b>Total for Program</b>	<b>33000</b>	<b>7500</b>	<b>4500</b>	<b>----</b>
				<b>45000</b>