Collections Management Software Review

Table of Contents

Introduction

The Canadian Heritage Information Network's (CHIN) mission statement emphasizes our willingness to support museums as they embark on the new directions dictated by today's emphasis on the management and exchange of electronic information.

At CHIN, part of this process involves the production of the *Collections Management Software Review*. It is meant to assist museums in integrating in-house systems into their institutions and to encourage them to take advantage of the growing availability, cost effectiveness and user friendliness of current software.

This *Review* represents the fourth edition in an ongoing series of evaluations of collections management software for museums. Its intention is to outline the suitability of specific software to museum discipline, collections size, museum functions, and hardware and software environment. It also analyzes vendor reliability, support requirements, customization possibilities, costs and more. The *Review* also ensures that the software meets CHIN and international standards and allows for importing and exporting data.

The *Reviews* are based upon intensive examinations of individual collections management software packages and comments from the evaluators. The evaluations were conducted using a checklist of over 500 functional items. This *Checklist* is available to the heritage community to enable institutions to determine their needs and create a checklist specific to them.

Finding the collections management software that meets the needs of an institution is a major undertaking. Knowing that each museum has different needs, this review is not meant to be a recommendation of specific software but a tool for museums looking at moving to in-house collections management systems. The tool is meant to assist museums in determining their requirements, narrowing their search and selecting the software best suited to their institution.

The software products included in this *Review* were submitted as a result of a Request for Information (RFI) distributed by CHIN. The information used in this report is based on:

1. vendor responses in February 2003 to CHIN's RFI
2. the results of the software evaluations which took place at various locations from April 2003 to mid June 2003.

This *Review* is intended to allow an institution to shortlist the various software packages to a manageable size. For further examination of those packages on the shortlist, detailed *Product Profiles* for the products evaluated in the *Review* are available from CHIN upon request, at no charge to Canadian member museums and for a fee outside this community.

Planning for an In-house System

Collections Management Software Selection
Collections Management Software Selection Process

Buying a software package must be done with the same consideration that is given any other major business investment. It is a major project and should be identified as such within an institution. Success depends upon the allocation of adequate resources, time and budget as well as the amount of thought dedicated to requirements and available models, vendors and costs.

In his book *Smart Selection and Management of Association Computer Systems*, Thomas J. Orlowski states:

Think of it this way. Replacing the computer system in an organization is like doing a human heart transplant. Information, documents and cash are the blood of an organization and the computer system is the heart that keeps it pumping. To determine if a person needs a heart transplant, highly trained people do a lot of research and run a lot of tests to see if something else could be wrong. If the need for a transplant is confirmed, they look for a replacement heart that is as compatible as possible. They form a team and plan

every step they will take before, during and after the operation. When the new heart is found, each member of the team becomes dedicated to carrying out his or her assigned responsibilities. In the end, if things are done correctly, the patient lives. However the patient will require some maintenance, the degree of which depends on how well the new heart matches the old body. The process should be exactly the same when you replace your organization's "operational heart" (p. 2).

CHIN has developed an online course *Collections Management Software Selection* dealing with all aspects of selecting a collections management software system. This includes all the information you'll need to plan for and establish a collections management software system. Course modules cover planning, budgeting, establishing your requirements, converting data, and establishing criteria. You'll also learn how to select, produce, launch and monitor your new system.

Collections Management Software Selection

The *Collections Management Software Selection* online course designed by CHIN provides information concerning the process of selecting software. This course provides an overview of the processes from the planning stage through to the long-term maintenance of a system. It refers to the *Collections Management Software Review* and the *Criteria Checklist* and explains how you can use it. It is highly recommended that those embarking in a search for a collections management software system consider taking this course before starting their search.

Collections Management Software Selection Process

CHIN recommends that museums searching for a collections management system take advantage of the *Collections Management Software Selection Online Training course*, but offers the following as an overview of the selection process.

Planning

Implementing a computer system cannot happen haphazardly. Detailed plans must be properly executed or the system will not work the way it was intended.

The Project Team

A project team, representative of a variety of responsibilities within the museum, should be dedicated to this endeavor and a project manager assigned. The project manager must:

1. Establish a mandate, including: defining the purpose and scope of the project, establishing authority, and defining limitations or boundaries.
2. Define a plan, including an overall plan plus details of each phase of the project. The plan should outline who, what, where, when and why.
3. Assess the necessary time and resources, including establishing levels of involvement for every person affected by the new system. Be aware that the project will likely require more time and resources than anticipated. Make sure those involved are mandated to work on the project for specific periods of time. All too often projects such as this are implemented by someone assigned responsibility adjacent to current duties. It is important to assign full time responsibility for a project of this scope.
4. Assign areas of responsibility for team members including a detailed outline of the responsibilities of each team member.

The project plan should be approved and endorsed by senior management to provide the necessary authority to proceed.

One of the duties of the team should also be to examine the technology and information currently available within the museum. It will be necessary to consider the possibility of changing the current environment and the costs related to this. Consider the compatibility of the new system with the existing technology. The best time to change is when other changes are being made.

Team members will also be responsible for an examination of current collections documentation. New software will not solve the problems of the current system unless the problems are recognized and corrected before the new system is selected. For this reason, the information must be gathered in a reliable, standardized method.

In order to purchase the system that will best suit the needs of the institution it is essential to know what data will be entered and what will be produced with that data. Be aware of the processes that need to be performed. Do condition reports or deed of gift forms need to be produced, etc?

Quite often once the decision to automate has been made the impulse is to immediately shop for a computer. Do not do this! It is important to realize that a computer is only as useful as the programmes run on it and that the type of programmes or software needed must be determined first. Select the software first. Then select the hardware that most effectively runs that software.

Defining Requirements

It is, therefore, necessary to define institutional needs. This will entail documenting all the information required in the system and defining what happens to the information in the current system. With this, the

strengths and weaknesses of current information handling can be identified. The new system should, of course, retain the strengths and build on the weaknesses. When looking for a system it is very important to carry a "shopping list". This list should include all needs with priorities set upon them. Priorities should be assigned to each function and group of information. Features should be noted as mandatory, highly desirable, desirable, etc. It is important to note that unless a system is developed from scratch, or is completely customized, compromises must be expected for almost any commercially available system. Assigning priorities to the functions and information will provide documentation to aid in selecting a system with the features most important to the museum.

It is essential that all groups in the museum who rely on collections management information in any way be consulted when deciding on requirements for a new system. It makes sense to take into account, when thinking about your future system, that other departments will eventually be using data or inputting data. Even though these departments may not be automating their processes now, they will be in the future and that will definitely affect the way data is processed. It is possible to determine how information is handled as it moves from department to department, from function to function. The planning of an integrated system is crucial. Before any one department is automated, it must be viewed in the context of a completely automated museum, with all departments functioning together, linked in various and often complex ways.

Mapping the links between different activities of an organization, and examining the flow of information through the various departments is the process involved in creating an Information Systems Framework (ISF). This is a tool, which is designed to facilitate the development of an organization's databases and computer systems. It provides the guidelines within which all development should occur, and allows for a comprehensive overview of the organization's business and the information required to conduct that business.

The production of an ISF is a complicated and time consuming process. However, the time spent now will be rewarded later as more departments begin to smoothly integrate data into the system. In order to determine exactly what the system must do for an institution, all the information required in the system must be documented and what happens to the information in the current system must be defined.

An Information Technology Plan should then be developed to determine the kind of technology needed to develop these systems. This facilitates the development of a plan outlining how to integrate the systems needed with the system currently in place.

Criteria Checklist

The criteria checklist that was used in CHIN's *Collections Management Software Review* will also assist with the process of defining needs. This document, included in this *Review*, was compiled by CHIN based on similar analyses from the Victoria and Albert Museum in London, England, the Info-Muse Regional Network in Quebec and the Saskatchewan Arts Board, as well as UK Museum Documentation Association's Spectrum and ICOM's CIDOC standards. A draft of this document was reviewed by over 20 members of the

Canadian museum community and the final document is used in the software reviews. The members of the team that reviewed the checklist were:

1. Janice Allen-Scott, Collections New Brunswick, Heritage Branch
2. Drew Ball, Yukon Tourism - Heritage Branch
3. Daryl Betenia, Glenbow-Alberta Institute, Glenbow Museum
4. Joanne Bird, Prince of Wales Northern Heritage Centre
5. Ruth Bitner, Saskatchewan Western Development Museum
6. Paul Collins, Nova Scotia Museum
7. Joan Damkjar, Archaeological Survey, Provincial Museum of Alberta
8. Albert Ferguson, Archaeological Services Branch, New Brunswick
9. Wendy Fitch, Museum Association of Saskatchewan
10. Richard Gerrard, Toronto Historical Board
11. Tom Gooden, Vancouver Art Gallery
12. Leslie Latta-Guthrie, University of Alberta, Museums & Collections Services
13. Jim Leonard, Peterborough Centennial Museum and Archives
14. John Maunder, Newfoundland Museum, Historic Resources Division
15. Lise Nadeau, Musée du Québec
16. Betty Ann Penner, Manitoba Museum of Man and Nature
17. Cliff Quinn, British Columbia Museums Association, Dogwood Network
18. Pat Reed, Trillium Provincial Network, Ontario Museum Association
19. Françoise Simard, Société des musées québécois, Info-Muse Network
20. Tom Smart, Beaverbrook Art Gallery
21. Jean Soublière, Musée canadien des civilisations
22. Greg Spurgeon, National Gallery of Canada
23. Nicole Vallières, Musée McCord d'histoire canadienne

A team of museum professionals conducted a major review of the *Criteria Checklist* for this (4th Edition) round of software evaluations. With changing technology, the exchange of information, and digitization the revised checklist incorporated some of these functionalities that can be found in collections management systems. The team members involved in the 2003 revision were:

1. Drew Ball – Yukon Government
2. Debbie Massett – Western Development Museum
3. Valerie Lenethen – Heritage Resource Services, Nova Scotia Museum
4. Daryl Betenia – Glenbow Museum
5. Australian Museums on Line (AMOL)

With changes to reflect individual circumstances, the *Criteria Checklist* will provide a base from which the museum can work.

Approaches

Once the needs have been defined, an institution will decide to take one of four approaches:

1. purchase a commercial software package.

    One approach to systems acquisition is to buy an application that is built to perform all or most of the functions required by an institution. Very rarely will all stakeholders view any one system as perfect. Some compromises are almost always necessary in taking this route, but it is normally the most economical in both the short and long term. This type of software is referred to as an application in CHIN's software review. They will differ in their approaches and emphasis but come pre-packaged with most of the fields and functionality required for use.

2. purchase a commercial software package and customize to perform functions specific to the institution.

    This type of customization may avoid some of the compromises necessary with "off the shelf" packages but is generally more expensive. The initial cost and ongoing support requirements may lessen the value of purchasing a commercial system, depending, of course, on the extent of customization. It is also possible to purchase commercial software and customize as time and resources allow.

3. purchase a development tool that provides a basic information and functional structure and develop an application specific to the institution.

    This is an in depth approach to customization using a development tool such as those that have been outlined in past CHIN software reviews. These products are based on the software mentioned in the next option but provide the necessary tools to assist an institution when creating their own applications.

    The term **development tool** refers to products that are tools to assist in creating applications. Customization by an institution or by the vendor is required to suit specific needs. Development tools offer the ability for each institution to adapt to changing standards, fields or processes. They also require that the client be well trained and highly knowledgeable in information management.

4. develop a customized system.

This is done using basic programming software that has no built-in collections management functionality. It requires a great deal of time and specialized expertise, both in the design and development phase and in the longer term production and maintenance environment. It is rarely a timely or cost effective solution.

Narrowing the Choices

Once an approach has been decided upon and a list of desired features created, begin looking at the software available from vendors outlined in the *Collections Management Software Review*. Use the *Review* to closely examine your requirements as defined by the institution, then check comments pertaining to them in the *Review*. It is important to keep the list of requirements in mind and realize that everything that is available may not be everything that is required.

Here are some things to consider when buying a system:

1. Know your needs
   - Make sure needs have been closely examined and documented
   - Do not look at systems without knowing what is needed. It is too easy to get caught up in what is demonstrated and not realize the system isn't really what is required.

2. Vendor Considerations
   - Are they reliable?
   - Have they installed other systems?
   - Have they installed similar systems?
   - How long have they been in business?
   - How accessible are they?
   - Are they easy to talk to?
   - Are questions answered clearly?

3. References
   - Check references thoroughly.
   - Talk to others that have had the system installed.
   - Try to visit a site and see the system in operation.

4. Support
   - What kind of support does the vendor offer?
   - What kind of documentation is available?
   - Are others in your area using the system?
   - Does the vendor install the system?

5. Costs

- o Is data entry included in the price?
- o Are there charges for changes to the system?
- o What training is included in the purchase price?
- o How much do upgrades to the system cost?
- o Are there charges for trouble shooting or start up?
- o Can there be a holdback in payment until the system is accepted?
- o How much are additional copies of the system?

6. Technology Issues
   - o Does the system run on specific machines?
   - o Can information be imported and exported?
   - o Is the technology up to date or is it at the tail end of a technology phase?
   - o Is the technology compatible with the rest of the museum in order for information to be exchanged in the most efficient manner?

Once the approach has been decided upon, the project team will be able to start the search for collections management software and the corresponding hardware. The *Review* will enable institutions to shortlist systems more easily. Then closer examination of the system can be undertaken by the institution.

It is essential that all interested parties be involved in the entire process. An appropriate system cannot be purchased without all stakeholders involved in the selection process. Remember that vendors will always insist that their system is the right choice. It is up to the team to determine if this is true.

Once a shortlist has been established, an institution may want a more detailed analysis of the software. Detailed *Product Profiles* for the products evaluated in this *Review* are available from CHIN upon request, at no charge to Canadian member museums and for a fee outside this community. This detailed document includes each criteria and an average score for each criteria evaluated based upon the results of the team analysis.

At this point an examination of the short-listed systems should occur. It will be helpful to visit other institutions using the software for a demonstration. In this way the software can be seen in a working environment and questions can be asked of users without the bias of the vendor. While viewing the software, always keep a copy of the list of requirements handy and mark down the specifications of the software at the time of viewing. Ask questions. It is the only way to determine if the system meets the needs previously specified. Important issues to discuss include installation time and related costs such as training, travel and maintenance. Ask questions about how long the system has been in place, who uses it, what the learning curve was like, how easy it is to use, and the quality of the support. Questions regarding these issues can then be discussed during the vendors demonstration.

Vendor Demonstrations

Ask each short-listed vendor for a demonstration at your site. Insist on a demonstration structured to your needs. Using the requirements defined previously take extensive notes and ask questions. This may be your only opportunity to do so. It is difficult to remember everything the system could do afterward and a very slick presentation can influence judgement of the actual functions of the software. In order to keep those who will be using the system as informed as possible it will be useful to involve them in the demonstration process. It is also essential to keep management posted, perhaps even scheduling a high level demonstration specifically for them.

Once demonstrations for each of the short-listed systems have been completed, a thorough comparison of these systems using the detailed notes taken during the demonstrations should be completed. It is important to remember that the look and feel of a system are important but should not override the need for specific features outlined in the defined requirements.

Making a decision

Each of the short-listed vendors should be asked for a detailed quotation. The decision may be as simple as price. It is often the case that the product required will include parts of the product that the vendor usually quotes separately. Ask for one price to include everything required as it is often possible to be provided a lower price with add-ons acquired from the start. However, be prepared for contract negotiations. Make sure that everything is put into writing including details such as training, installation, timing, guarantees after installation, and support, both short and long term.

Final negotiations for acquisition must detail the terms and conditions for installation, customization, integration with other processes, training, data conversion and long term support.

Planning for implementation must address responsibilities, time and resources, installation, training, assignment of staff, start-up and the impact on the organization over the longer term production and maintenance period.

Implementation

Once acquired, the software itself must be properly installed. The system should be tested to make sure everything works as expected and negotiated. Start up activities such as data entry should be completed. The staff must be trained to become familiar with the new environment. A System and/or Database Administrator should be assigned.

Training

Those who will be using the system will need to be provided with training. Be aware that different depths of training will be required within the institution. The System and/or Database Administrator should be given

in-depth training. Someone should also be trained on the system in order to train others in the future. This will avoid the need to pay the vendor for future training. The system may have to be run parallel to the original system for a period of time until the system is running smoothly and staff are comfortable.

Maintenance

The longest, most expensive and most important part of the process, maintenance is necessary throughout the life of the system. A maintenance plan is essential to provide for support, ongoing training, and file maintenance, backups, changes, enhancements, etc.

A system cannot be developed and then simply left to a life of its own. Administration and maintenance of the system will need to be implemented. For this reason, a System and/or Database Administrator should be appointed and charged with the task of maintaining the system. Duties would include keeping the data up to date, responding to requests for data, making data backups, monitoring and trouble shooting, liaising with the vendor, training new staff and coordinating vendor upgrades.

It is important to budget for ongoing costs such as hardware and software maintenance and upgrades, staff training and time. These costs will manifest themselves after the initial purchase, as staff become more familiar with the system and wish to have further functionality implemented.

Evaluation Process

The Evaluation Team
Accredited Products in Edition 4
Non-Accredited Products in Edition 4
Evaluation Process for Edition 4
Evaluation Environment

Three editions of the *Collections Management Software Review* have already been published. Edition 1, Volume 1 (released in March 1996) and Volume 2 (released in July 1996) contain information on eleven software products. Edition 2 (released February 1997) contains information on sixteen software products. Edition 3 (released March 2000) contains information on eighteen software products. Please note that Edition 1 and Edition 2 publications have been discontinued.

In February of 2003, a new Request for Information (RFI) was sent to over fourty *Collections Management Software Vendors* internationally. Sixteen software products were submitted for evaluation.

The sixteen products included in Edition 4 of this *Review* were demonstrated at various locations in Canada and the U.S. to a team of CHIN staff and museum professionals from both Canada and the U.S. The evaluations took place between the months of April and July 2003. These evaluations were held in Winnipeg,

MB, Portland, OR, and Gatineau, QC. Comprehensive reviews of these software products are included in this volume.

There are many collections management software products available, and not all are included in this review. The fact that these products are not included here does not necessarily mean that they do not meet the mandatory requirements that were set out by CHIN in the RFI, nor does it mean that CHIN does not approve of the software. The vendors of many of these products chose not to respond to the 2003 RFI, and therefore their products were not evaluated in this round. Some of the products have not had major upgrades since the last collections management software evaluation, others may have been undergoing an upgrade and were not yet ready to be evaluated. Some of the products that do not appear in this *Review* can be found in Edition 3 of the *Collections Management Software Review*.

The Evaluation Team

A team within the Technology Assessment area has been established at CHIN to assist the North American museum community in identifying their needs for collections management software, to conduct the evaluations and publish the results of the evaluations. This team consists of :

Jim Fox, Manager, Technology Assessment
Diane Bowden, Systems Analyst, Technology Assessment
Julie Letellier, Research Assistant, Technology Assessment

The following team of museum professionals were involved in the 2003 evaluations. They represent institutions that expressed an interest in moving to an in-house system or expressed an interest to participate in order to acquire a better understanding of the process to evaluate collections management software.

The evaluation team participants were:

1. Lee Boyko, Regina, SK
2. Deborah Confer, Anthropology Collection Manager, University of Colorado Museum, Boulder, CO
3. Kris Dietrich, St. Marys Museum, St. Marys, ON
4. Christine Droll, Collections Database Administrator, The Nelson-Atkins Museum of Art, Kansas City, MO
5. Andrea Earl, Curator, Manitoba Crafts Museum and Library, Winnipeg, MB
6. Kathryn Elliott, Corner Brook Museum & Archives, Corner Brook, NL
7. Lori Erickson, Oregon Museum of Science and Industry, Portland, OR
8. Peter Frank, Chief Registrar, Canadian Museum of Nature, Aylmer, QC

9. Elizabeth Hunter, Manager of Museums for Prince Edward County, Picton, ON
10. Lynnea Kleinschmidt, Administrative Librarian, Richmond Public Library, Richmond, CA
11. Valerie Lenethen, Senior Registrar, Heritage Resource Services, Nova Scotia Museum, Halifax, NS
12. Nicolette Meister, Curator, Logan Museum of Anthropology, Beloit, WI
13. Susan Noakes, Welland Historical Museum, Welland, ON
14. Betty-Ann Penner, The Manitoba Museum, Winnipeg, MB
15. Stacey Skold, Collections Manager, Sheldon Memorial Art Gallery and Sculpture Garden, Lincoln, NE
16. Koven Smith, Database Administrator, Indianapolis Museum of Art, Indianapolis, IN
17. Lucille Stiger, Registrar, Allen Memorial Art Museum, Oberlin, OH
18. Margaret Tamulonis, Collections Digitization Project Manager, The Robert Hull Fleming Museum, Burlington, VT
19. Len Thorson, State Historical Society of North Dakota, North Dakota Heritage Center, Bismarck, ND
20. James Tichgelaar, Assistant Director, Arkansas State University Museum, Jonesboro, AR
21. Jenny Wilson, Registrar, Exhibitions and Loans, Vancouver Art Gallery, Vancouver, BC

Accredited Products in Edition 4

The following products, included in this Review, met all the mandatory requirements set by CHIN in the 2003 RFI and have been accredited by CHIN.

Product Name	**Vendor Name**
ADLIB Museum	ADLIB Information Systems
EmbARK™	Gallery Systems
iO	Willoughby Associates, Limited
KE EMu	KE Software Inc.
M3 – MINISIS Management for Museums MINT (MINISIS Integrator)	MINISIS, Inc.
Multi MIMSY 2000	Willoughby Associates, Limited

MuseumPlus	zetcom AG
PastPerfect Museum Software	Pastime Software Company, Inc.
Re:discovery	*Re:discovery* Software, Inc.
STAR®, with the STAR®/Museums Application	Cuadra Associates, Inc
The Museum System	Gallery Systems
The Visual Archiver	Commonwealth Historic Resource Management Ltd.
Vernon (previously called COLLECTION)	Vernon Systems Ltd.
Virtual Collections™	Gestion de Collections Innes Inc. (GCI Inc.)

Non-Accredited Products in Edition 4

Although each of the vendors included in this *Review* replied that they met the mandatory requirements that were set out in the RFI, CHIN has not necessarily accredited them. Accreditation depends on the ability of the software to import and export data during the evaluation process.

CHIN has not accredited the following product, as they did not meet the criteria above.

This system is a highly functional systems that did meet many of the other criteria within CHIN's *Criteria Checklist*.

Product Name	**Vendor Name**
ARGUS Collection Management System	Questor Systems, Inc.

Evaluation Process for Edition 4

CHIN initiated the process by sending out a Request for Information (RFI) to all vendors known to have a collections management software system. This RFI outlined the parameters for the evaluation, asked the vendor for pertinent information such as vendor product description, product costs, etc., and included the *Criteria Checklist* to be completed by the vendor. Those vendors who wished to be evaluated responded on-line to the RFI with product information and a completed criteria checklist indicating whether their system could or could not perform each function. Each vendor who replied was then invited to participate in the collections management software evaluation by demonstrating functions they indicated the system could perform.

Vendor Set Up and Evaluation

Each vendor was allocated one day to demonstrate their product(s). Time was designated for them to set up equipment and provide an overview of the system in order to orient the evaluation team. A selected number of individual criteria were then demonstrated. Time was also allocated at the end of the demonstration for the vendors to illustrate and/or to discuss other pertinent points such as upcoming new features.

Team Evaluation

Demonstrations took place at The Fairmont Hotel Winnipeg, Winnipeg, MB; Embassy Suites Hotel, Portland, OR and CHIN office in Gatineau, QC.

From the *Criteria Checklist* of over 500 functional items, 169 criteria were selected for the software evaluation. CHIN felt that these criteria were a fair and good representation of the capabilities of a collections management system. The list of criteria selected for the evaluation was not made available to the vendor until demonstration time and only those criteria to which the vendor had responded positively were demonstrated.

The evaluators used these selected criteria knowing of each vendor's response in the RFI. The vendor was requested to follow a prepared script for each criteria in order to facilitate smooth and timely demonstrations. Team members were asked to apply scores and comments to each demonstrated criteria and provide a narrative overall evaluation of the software.

Each team member returned their comments and scores to CHIN following the demonstrations. The scores have been averaged and are presented in summary form in this *Review*. The detailed average scores and comments appear in the individual *Product Profiles*.

Scoring

In order to rate the performance of each criteria demonstrated, it was requested that team members apply the following scores:

Good	- The software performs functions remarkably well.
Fair	- The software performs function adequately.
Poor	- The software performs function, but not very well.
Does not Perform	- The software does not perform this function.

The team was asked to use a score of 'Fair' as a standard rating. The evaluators were also encouraged to use the ratings with a plus (+) or minus (-) sign in order to more accurately reflect their scores. These scores were then converted to numerical values in order to provide the comparative analysis. The numeric values ranged from 0.0 for Does not Perform to 4.5 for Good (+).

If the vendor indicated that a function could be performed by the system but could not demonstrate that function the vendor responses were changed to Does not Perform.

The final totals in the summary tables in this *Review* should be used with care. The final total scores will give an overview of the software's functionality, but individual sections should be reviewed with care noting the areas of importance within the institution.

Acceptable scores for these functions will lead to the best-suited software. For example, a system that received a high overall score may have a relatively low score for a particular area, such as loan functionality. Such a system may not be desirable to an institution that deals heavily in loans.

Evaluation Environment

The format of the evaluations for this 4th round was very similar to the previous evaluation, which took advantage of a wider North American base for evaluators.

The evaluations were "taken to the community" in that they were held at varied sites throughout the United States and Canada. They were held before and after museum conferences and at the CHIN office in Gatineau.

CHIN notified the North American museum community of the opportunity available to evaluate collections management software. Respondents included registrars, curators and collections managers. Evaluators all had background in collections management and represented views from different sizes of institutions, as well as a variety of disciplines. The evaluators were briefed on the process prior to the start of the evaluations.

In order to keep continuity and provide both a museum and technical perspective, the CHIN team of Jim Fox and Diane Bowden participated in all evaluations.

Each vendor provided his or her own equipment loaded with the system software in order to conduct the evaluation. All vendors used CHIN's Panasonic pl550 LCD projector to allow the evaluators to view the demonstration.

How to Use This Review

This *Review* is meant to be used as a tool to enable the museum community to move progressively towards obtaining an in-house collections management system. The *Review* in itself will not accomplish this. Under no circumstances should an institution pick a system out of a book. This *Review* will, however, allow the institution to intelligently narrow the field to a reasonable number of systems to be scrutinized in more detail.

Once the institution's needs have been defined the search can begin. Using the defined requirements and customized criteria checklist to examine the systems in this *Review* the institution can find the closest fit. Care should be taken to judge the systems in accordance with the functions important to the institution. A high total score by a system is not necessarily an indication that a particular system is good.

This *Review* is meant to allow a museum to narrow choices to 2-4 systems. This shortlist will identify systems that require further examination. CHIN can provide the detailed *Product Profiles* for these particular systems. These acceptable systems should be forwarded an RFP (Request for Proposal) and the vendor requested to provide a demonstration.

During these demonstrations, CHIN recommends that the museum download and modify the *Criteria Checklist* by adding columns for comments and ratings to perform their own evaluation of these narrowed systems.

Please refer to the glossary of terms while using this *Review*.

Product costs reported in this review are in the currency provided by the vendor. As for the writing of this document $1 US = $1.34 Cdn.,
$1 Euro = $1.56 Cdn.

Overview

For each product, information is presented outlining:

- vendor and product information,
- costs,
- information on training and documentation,

- customer support, including vendor reliability, and references
- the hardware and software environment in which the demonstration was presented.

Functionality has been evaluated in the following areas:

1. Collections Management, including:

Object Entry,
Acquisition,
Inventory Control,
Location and Movement Control,
Cataloguing,
Conservation Management,
Rights and Reproductions,
Risk Management,
Insurance Management and Valuation Control,
Exhibition Management,
Dispatch,
Loans
Deaccession and Disposal.

2. Data Management, including:

Data Field Structure,
Data Entry,
Data Validation,
Data Update,
Indexing of Fields
Vocabulary Control, including Authority Control and Thesaural Control.

3. User Interface, including:

Help Features,
Date Formats,
User Customization,
Bilingualism (English/French),
Other Languages,
Public Access,
Multimedia
Metadata.

4. Query, including:

General Requirements,
Range Searches,
Wildcard Searching,
Query Results
Features.

5. Reports, including:

Pre-defined Reports
User Defined Reports.

6. Technical Requirements, including:

Import/Export functions,
Documentation and Support,
Training
Features.

7. System Administration, including:

Security,
Index(s),
Backup
Audit Reports.

A series of tables is also included to provide a detailed comparison of the functionality of the various software products.

Products Evaluated

The *Collections Management Software Review* is an ongoing series. To date, it has included the following software products:

Product	Company	Publication
ADLIB Museum	ADLIB Information Systems	Edition 3, Edition 4
ARGUS Collections Management System	Questor Systems, Inc.	Edition 3, Edition 4
ARGUS for Windows™	Questor Systems, Inc	Edition 1, Volume 1
Artsystems Collections	Artsystems, Ltd.	Edition 3
EmbARK™	Gallery Systems	Edition 2, Edition 3,

		Edition 4
GENCAT	Eloquent Systems, Inc.	Edition 1, Volume 1
Heritage Sentinel	Sentinel Computer Consultants Inc.	Edition 2
HyperMuséo	SOREIB - Renard Systems	Edition 2
iO	Willoughby Associates, Limited	Edition 4
KE EMu	KE Software Inc.	Edition 3, Edition 4
KE Texpress	KE Software Inc.	Edition 1, Volume 1
M3 - MINISIS Management for Museums	MINISIS, Inc.	Edition 4
Micromusée	MOBYDOC	Edition 3
Micromusée	MOBYDOC Brochu Robillard Culture et Technologies Inc.	Edition 2
MIMS - Museum Information Management System	xwave solutions; Nova Scotia Museum Partnership	Edition 3
MINISIS	International Development Research Centre (IDRC); MINISIS Systems Group	Edition 2, Edition 3
MINT (MINISIS Integrator)	MINISIS, Inc.	Edition 4
Multi MIMSY	Willoughby Associates, Limited	Edition 1, Volume 2
Multi MIMSY 2000	Willoughby Associates, Limited	Edition 3, Edition 4
MuseumPlus	zetcom AG	Edition 4
PastPerfect Museum Software	Pastime Software Company, Inc.	Edition 3, Edition 4
Re:discovery	Re:discovery Software Inc.	Edition 2, Edition 3, Edition 4
SNAP! for Windows	Willoughby Associates, Limited	Edition 2, Edition 3
STAR®	Cuadra Associates, Inc.	Edition 2
STAR® with the STAR®/Museums Application	Cuadra Associates, Inc.	Edition 3, Edition 4
The Museum System	Gallery Systems	Edition 2, Edition 3, Edition 4
The Visual Archiver	Commonwealth Historic Resource Management Ltd.	Edition 3, Edition 4
Vernon (previously called COLLECTION)	Vernon Systems Ltd.	Edition 2, Edition 3, Edition 4
Virtual Collections™	Gestion de collections informatisées	Edition 2, Edition 3, Edition 4

CHIN publications in this series include:

Collections Management Software Review Comparative Analysis

- Vendor and product information, including a narrative description and product specifications
- Costs for software, training, documentation and other services
- Customer support, including vendor reliability and references
- [Table of Evaluation Results by Vendor](#) (a numerical outline of functionality for each of the products in this *Review*)
- [Comparative Table of Evaluation Results](#) by Criteria Subsection (grouped according to the *[Criteria Checklist](#)*)

Collections Management Software Review Product Profiles

Individual detailed evaluation results of 16 collections management software products:

- Vendor and product information, including a narrative description and product specifications
- Costs for software, training, documentation and other services
- Customer support, including vendor reliability and references
- Evaluators' comments on a product
- Individual ratings for each criteria evaluated and demonstrated by the vendor

Collections Management Software Review [Criteria Checklist](#)

- A checklist of over 500 functional items (by using this same checklist, institutions can determine their needs and create a checklist specific to them)

Please note that Edition 1 and Edition 2 Collections Management Software Review(s) are no longer available.

Product Reports

[ADLIB Museum](#)

[ARGUS Collections Management System](#)

[EmbARK](#)

[iO](#)

[KE EMu](#)

[M3 - MINISIS Management for Museums](#)

[MINT (MINISIS Integrator)](#)

[Multi MIMSY 2000](#)

[MuseumPlus](#)

[PastPerfect Museum Software](#)

[Re:discovery](#)

[STAR and STAR/Museums](#)

[The Museum System](#)   [Vernon - previously called Collection](#)

[The Visual Archiver](#)   [Virtual Collections](#)

The following Import and Export formats have been supplied by the vendor and all may not have been demonstrated during the evaluation process. CHIN accreditation is based on whether the vendor was able to demonstrate the import and export capabilities in a format of their choice.

Software Product	Vendor	Import Formats	Export Formats
ADLIB Museum	ADLIB Information Systems	XML (Spectrum XML is supported), ODBC (both client and server), Z39.50, MARC (for museum libraries), CSV (Comma Separated Values or Variables), tagged	XML (Spectrum XML is supported), ODBC (both client and server), Z39.50, MARC (for museum libraries), CSV (Comma Separated Values or Variables), tagged
ARGUS Collection Management System	Questor Systems, Inc.	Delimited ASCII, DIF, Excel, HTML, Lotus, ODBC, Paginated Text, Record Style, RTF, Word for Windows, Dbase, Powersoft, SQL, Windows Metafile, CHIN Microtext, SGML, XML. For others, please contact Questor Systems.	Delimited ASCII, DIF, Excel, HTML, Lotus, ODBC, Paginated Text, Record Style, RTF, Word for Windows, Dbase, Powersoft, SQL, Windows Metafile, CHIN Microtext, SGML, XML. For others, please contact Questor Systems.
EmbARK™	Gallery Systems	ASCII text, EmbARK-interchange, or ODBC data source	ASCII text, EmbARK-interchange, or ODBC data source
iO	Willoughby Associates Limited	ODBC, ASCII, CHIN	ODBC, ASCII, CHIN
KE EMu	KE Software Inc.	XML, CSV, tab delimited, HISPID	XML, CSV, tab delimited, HISPID
M3 – MINISIS Management for Museums	MINISIS, Inc.	ISO 2709, ASCII, ODBC, Batchin	ISO 2709, ASCII, ODBC, Batchin
MINT (MINISIS Integrator)	MINISIS, Inc.	ISO 2709, ASCII, ODBC, Batchin	ISO 2709, ASCII, ODBC, Batchin
Multi MIMSY 2000	Willoughby Associates, Limited	DDE, ODBC, OLE plus CHIN and ASCII import/export, CIMI DC export, AMICO, XML (upon	DDE, ODBC, OLE plus CHIN and ASCII import/export, CIMI DC export, AMICO, XML (upon

		completion)	completion)
MuseumPlus	zetcom AG	ASCII, tab, column or space delimited. ODBC, SML/XSL	ASCII, tab, column or space delimited. ODBC, SML/XSL
PastPerfect Museum Software	Pastime Software Company, Inc.	ODBC, OLE, ActiveX	ODBC, OLE, ActiveX
Re:discovery	*Re:discovery* Software, Inc	Delimited ASCII, HTML, SGML/XML, MARC or ODBC data source	Delimited ASCII, HTML, SGML/XML, MARC or ODBC data source
STAR®, with the STAR®/Museums Application	Cuadra Associates, Inc.	ASCII, MARC, CHIN, ADO, XML	ASCII, MARC, CHIN, ADO, XML
The Museum System	Gallery Systems	Export to standard PC formats, or ODBC data source	Export to standard PC formats, or ODBC data source
The Visual Archiver	Commonwealth Historic Resource Management Ltd.	Texte, DIF, SYLK	Texte, DIF, SYLK
Vernon (previously called COLLECTION)	Vernon System Ltd.	ASCII, HTML, XML	ASCII, HTML, XML
Virtual Collections™	Gestion de Collections Innes Inc. (GCI Inc.)	BASIC, Comma-Separated Text, DBF, .DIF, .DIF, Edition File (Mac OS only), Microsoft Excel, FileMaker Pro- .FP5, .FP3, or .FM, HTML, Merge (.MER), SYLK (.SLK), Tab-Separated Text, WKS, WK1	BASIC, Comma-Separated Text, DBF, .DIF, .DIF, Edition File (Mac OS only), Microsoft Excel, FileMaker Pro- .FP5, .FP3, or .FM, HTML, Merge (.MER), SYLK (.SLK), Tab-Separated Text, WKS, WK1

Comparative Analysis

The *Table of Comparative Functionality* is a graphic comparison of the functionality performed by each of the systems evaluated.

The *Table of Evaluation Results by Product* is a numerical outline of functionality for each of the products in this review. For each vendor, evaluation results for the seven categories of the criteria checklist are given.

The *Comparative Table of Evaluation Results by Criteria Subsection* is grouped according to the criteria checklist instead of by vendor. It is divided into seven categories, each with subsections.

These last two tables outline a number of factors including:

%Demo'd :   Proportion of demonstrated criteria over the number of criteria that was

evaluated within this section

%Not Demo'd :   Proportion of criteria **not demonstrated** over the number of criteria that was evaluated within this section

Average Score :   Averaged score attributed by the evaluation team (maximum of 4.5)

Rating :   an overall rating for each section or subsection based on the average score divided by the maximum score of 4.5 then multiplied by the percentage demonstrated

During the evaluations, the Evaluation Team was asked to use a score of 2.5 (Fair) as the standard score. This method of applying scores was changed slightly from the previous evaluations. This change caused the scores to be lower, on average, than they were in the previous *Reviews*. In order to make the scores in this volume comparable to the scores in the previous editions, the scores applied by the Evaluation Team for each software product have been added to a base score which was given equally to all products.

The final totals in the summary tables in this *Review* should be used with care. The final total scores will give an overview of the software's functionality, but be sure to carefully review individual sections that are important to each institution. Acceptable scores in these areas will lead to software suited to each institution. For example, a system that received a high overall score may have a relatively low score for an individual function, such as loan functionality. Such a system may not be desirable to an institution that deals heavily in loans.

Glossary of Terms November 2003

The following is a list of terms, with their definitions as they are used in this report.

Accessioning

The formal inclusion of an object/specimen lot into the collection of an institution (documenting the acquisition process). Follows transfer of title and include the assigning of a unique number and entry into the accession register.

Accountability for an object/specimen lot

Responsibility for an object/specimen lot; the requirement to account for the object/specimen lot.

Acquisition Process

The documentation and management of the addition of objects/specimen lots to the permanent collections of the institution (MDA SPECTRUM).

Application

A software package that is built to deal specifically with a business function - in this case museum collections management.

Art & Architecture Thesaurus

A comprehensive thesaurus for the fields of art and architecture created by the Art History Information Program (now the Getty Information Institute) of the J. Paul Getty Trust.

Authority File (Authority List)
List of acceptable entries to ensure that the data entered into a field match a predefined format or are part of a predetermined list. Does not include thesauri.

Batch Updates
Sequential processing of a batch of records with a series of record updates.

Benchmark
Benchmark is the process which standard computer uses programs or procedures to test the efficiency, accuracy and completeness of software applications.

Bilingual
The ability to function in Canada's two official languages, English and French.

Boolean
An algebra that permits operations on sets of elements. Principal Boolean operators are AND (intersection), OR (union) and NOT (difference).

Cataloguing Process
The compilation and maintenance of primary information describing, formally identifying, or otherwise relating to objects/specimen lots in the collection (MDA SPECTRUM).

CIDOC
The International Committee for Documentation of the International Council of Museums.

Command Language
A formal language for providing instructions to a computer system in an on-line, interactive mode. Command languages have a well-defined vocabulary, syntax, and logical structure.

Concatenation
An operation wherein a number of conceptually related components are linked together to form a larger, organizationally similar entity.

Conservation Management Process
The documentation and management of information about the conservation of objects/specimen lots from a curatorial and collections management perspective (MDA SPECTRUM).

Database
A collection of data or information. As the term is usually employed in on-line information retrieval, it refers to a collection of records.

Database Administrator
The person responsible for defining, updating, and controlling access to a database or group of databases.

Deaccession/Disposal Process
The management of disposal (transfer, sale, exchange, or destruction of objects/specimen lots) and of deaccession (documenting the disposal).

Development Tool
A software product that is a tool to assist in creating an application.

Diacritic codes
Accents or codes added to a character to signify a different value.

Dispatch Process
The management and documentation of objects/specimen lots leaving the institution's premises (MDA SPECTRUM).

Dublin Core

Dublin Core is an emerging information infrastructure of the Internet. It is a core set of elements for describing web resources that is intended to facilitate the discovery of electronic resources.

Dynamic Data Exchange (DDE)

A Microsoft Windows 3 hotlink protocol that allows applications programs to communicate using a client-server model. Whenever the server (or "publisher") modifies part of a document, which is being shared via DDE, one or more clients ("subscribers") are informed and include the modification in the copy of the data on which they are working.

Exhibition Management Process

The management and documentation of temporary exhibitions and permanent displays, including the processes of developing, co-ordinating, and implementing an exhibition display programme (MDA SPECTRUM).

Fixed length records

Where all records of a file have the same number of characters and contain the same fields.

Flat file structure

A database using the flat file structure can only access one record of data at a time. All fields are at the same level. To access data it is necessary to browse through the records or go straight to the desired record in a manner similar to using a card index.

Garnier

Garnier, François. Thesaurus iconographique: système descriptif de représentation. Paris: Le Leopard d'Or, 1984. 239 pp.

Global Updates

Record updates which are processed against all records in the database.

Hard coded

The process whereby functionality is programmed within a software using a computer language. Any changes would require programming knowledge.

Hierarchical file structure

Organization in a series of levels so that information is structured from a higher to a lower order. Different levels of information are contained in the same record.

Hot-key (Shortcut key)

A key or set of keys pressed simultaneously to perform an underlying command that, without programming, would require multiple keystrokes.

HTML

A markup language that is a subset of SGML and is used to create hypertext and hypermedia documents on the World Wide Web incorporating text, graphics, sound, video, and hyperlinks.

Index

A special structure that facilitates locating particular records based on field values.

Insurance Management Process

Documenting and managing the insurance needs of objects/specimen lots both in an institution's permanent collection, and those for which it is temporarily responsible, such as loans or deposits (MDA SPECTRUM). Also see Valuation Control Process.

Interface

A computer program designed to allow a computer user to interact easily with the computer typically by using a mouse to make choices from menus or groups of icons.

Inventory Control Process

The maintenance of up-to-date information identifying all objects/specimen lots for which the institution has a legal responsibility, including objects on loan, unaccessioned, or previously undocumented items and enquiries (MDA SPECTRUM).

Lexicon

A word-book or dictionary; a special vocabulary; a list of words or names.

Linked records

Records containing specific references to related records so they may be retrieved at the same time.

Loans - Incoming Loan Process

Managing and documenting the borrowing of objects/specimen lots for which the institution is responsible for a specific period of time and for a specific purpose, such as display, research, education, or photography (MDA SPECTRUM)

Loans - Outgoing Loan Process

Managing and documenting the loan of objects/specimen lots to other institutions for a specific period of time and for a specific purpose, such as display, research, education, or photography (MDA SPECTRUM)

Local Area Network (LAN)

A collection of computers, terminals, printers, and other computing devices that are connected through cable over relatively short distances, for example, within a single building.

Local Area Network (LAN) Specialist

The person responsible for updating, implementing and controlling access to the LAN.

Location and Movement Control

The documentation and management of information concerning the current and past locations of all objects/specimen lots in the institution's care to insure that the museum can locate any object at any time (MDA SPECTRUM).

Lot

One or more objects/specimen lots acquired in a single transaction, as by bequest, field collection, gift or purchase, and covered by a single record in the accession file.

Meta Data Tags

Data about data. Meta data describes how and when and by whom a particular set of data was collected, and how the data is formatted.

Mnemonic

A unique abbreviation assigned to a data field.

Multi-tasking

The simultaneous execution of two or more instructions by a single computer or network.

Multiple indexing of fields

A single index that is built from one or more fields that are typically searched together.

Natural language

A language in active use by a community, such as English or French.

Nesting

A procedure or function within another procedure or function.

Object Entry Process

The management and documentation of the receipt of objects/specimen lots that are not currently part of the collections. These objects may or may not eventually be accessioned (MDA SPECTRUM).

Object/Specimen lot

An item, which forms, parts of an institution's collections either permanently or temporarily.

Object Linking and Embedding (OLE)

A distributed object system and protocol from Microsoft. OLE allows an editor to "farm out" part of a document to another editor and then re-import it. For example, using OLE, a desktop publishing system might send text to a word processor or a picture to a bitmap editor.

Object Oriented

The concept behind this type of programming lies with an "object", meaning a software packet containing a collection of related data and procedures for operating on that data.

Optical Character Recognition (OCR)

A device capable of scanning a document and converting the contents to character representation.

Pre-defined Reports

Reports that have been designed and created in a specific layout format.

Programmer

The person, who designs, writes, tests and maintains computer programs.

Proximity search

A search within a field or within a specified context unit where the proximity of words to one another has significance. Context can be sentences, paragraphs, or user-defined units.

Random-Access Memory (RAM)

A storage device structured so that the time required to retrieve data is not significantly affected by the physical location of the data.

Range

The set of values between and including beginning and ending values.

Relational file structure

A database in which data are represented as tables. Its database management system has the capability to recombine the data fields to form different relations, thus giving great flexibility in the usage of data.

Report generator

A nonprocedural module used to provide a means for organizing and reformatting data to produce reports.

Report Display function

A function used to display output from a report or organize and reformat data to produce a report.

Result set

Data consisting of pointers to records that have satisfied the search criteria specified in a retrieval command.

Rights and Reproductions Management Process

Documenting and managing information about the reproduction of objects, including the preparation of images, casts, and models (MDA SPECTRUM).

Risk Management Process

Management and documentation of information relating to potential threats to an institution's collections and the objects/specimen lots for which it is temporarily responsible. It includes the provision of information enabling preventative measures to be taken as well as documentation supporting disaster planning (MDA SPECTRUM).

SGML

Standard Generalized Markup Language.

Source Code

A computer program consisting of instructions in a machine language which can be directly understood by the computer. (A computer program written in a source language such as BASIC, C+, COBOL, FORTRAN, etc.)

SPECTRUM

A United Kingdom Museum Documentation Standard. Developed by The UK Museum Documentation Standard Project, compiled and edited by Alice Grant, Published by the Museum Documentation Association, Cambridge 1994.

Stop word list

A list of words that have no value for indexing or retrieval purposes, and for which no entries are made in the index. (e.g. it, the, and)

Sub-field

A field within a field (e.g. an object/specimen lot location field may contain subfields for building, room, shelf, etc.).

System Administrator

The person responsible for updating, maintaining and controlling access to the systems software and hardware.

Thesaurus

An on-line dictionary of synonyms and other semantically related words. Using the relationship to define a hierarchical structure of words such as Broader Term, Narrower Term, Related Term, Used For, etc. It may also include language equivalents and translation terms.

Truncation

The suppression of characters or a string of data according to some predetermined requirement.

Unique key

A field or index that uniquely identifies a record. This could be a system generated number.

Unique number

Depending on institutional requirements, this number may be the accession number, the catalogue number, or other related number. This is not meant to refer to a system generated number.

Units of Information

A specifically defined piece of information identified within SPECTRUM, and similar to CHIN's fields.

Valuation Control Process

The management of information relating to the valuations placed on individual objects, or groups of objects, normally for insurance/indemnity purposes (MDA SPECTRUM). Also see Insurance Management.

Variable length records

Records are of different lengths; the number of characters varies from one record to the next.

Wild Card

A special character or character sequence which matches any character in a string comparison.

Wraparound

When the text reaches the end of a line or column, a line feed is generated and the text continues on the following line.

Z39.50

Z39.50 is a standard protocol used to search and retrieve information in a distributed environment.

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