

# **AMICO Member Museum Technology Survey**

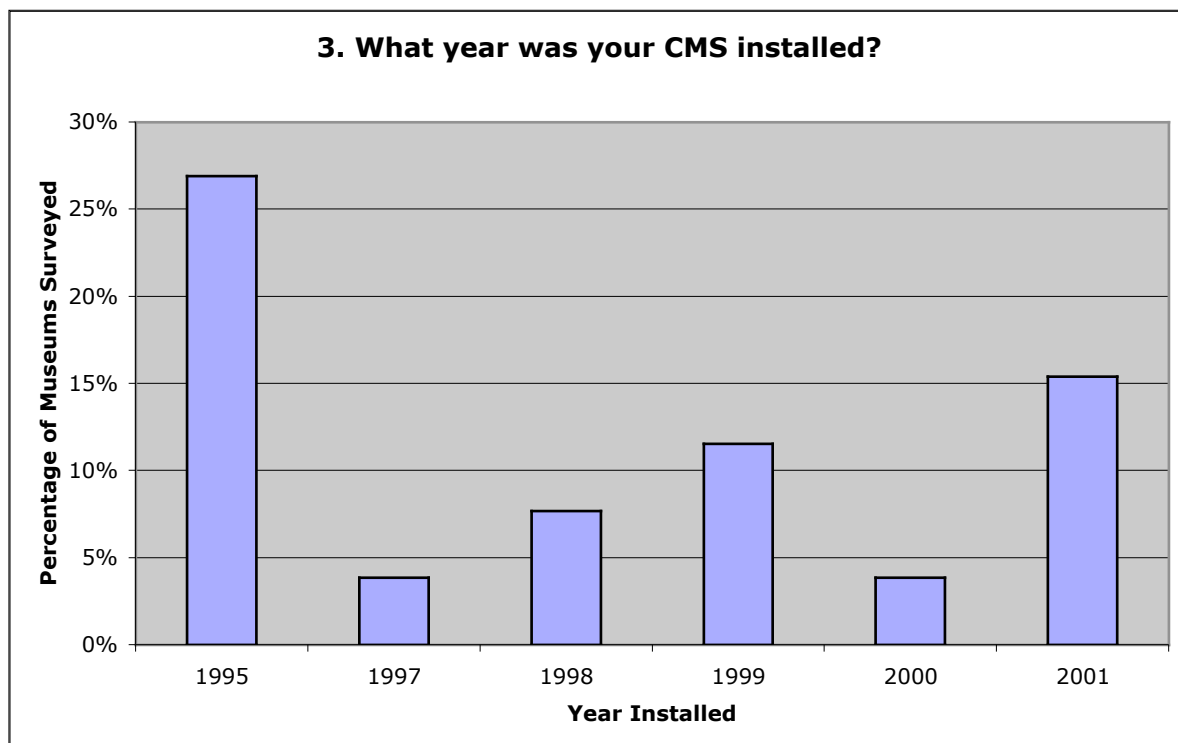
05.10.02 – 12.10.02

**DRAFT v.1.1**

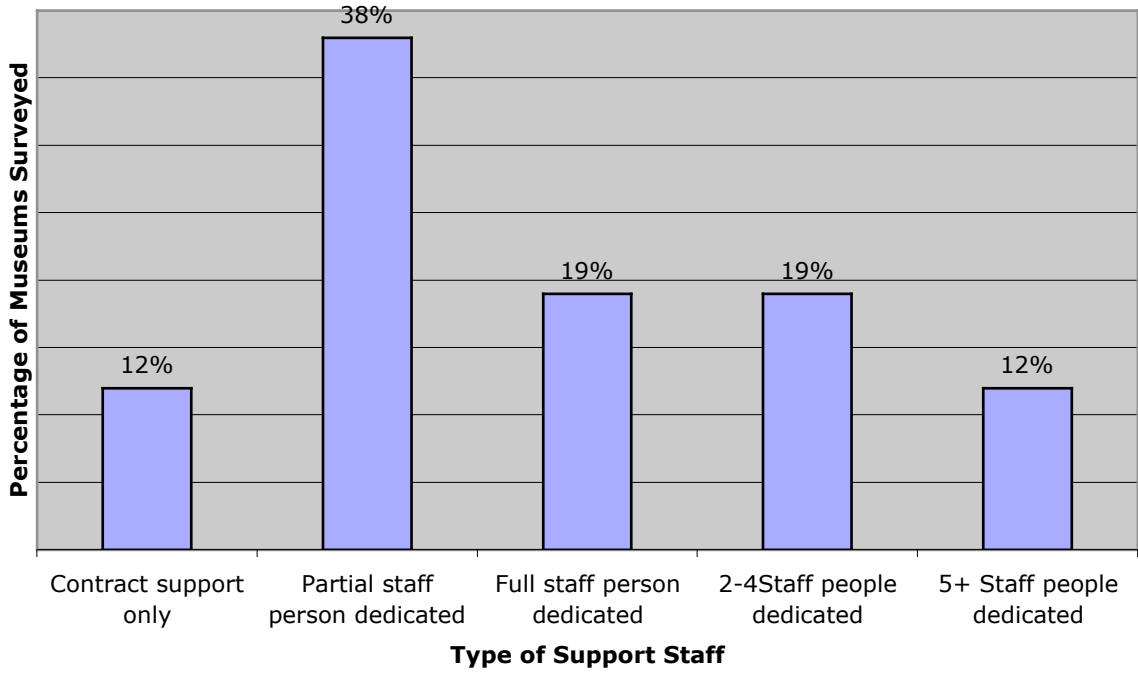
## Section 1: Collections Management

### 1,2,4. What Collections Management System (CMS), databases and platforms?

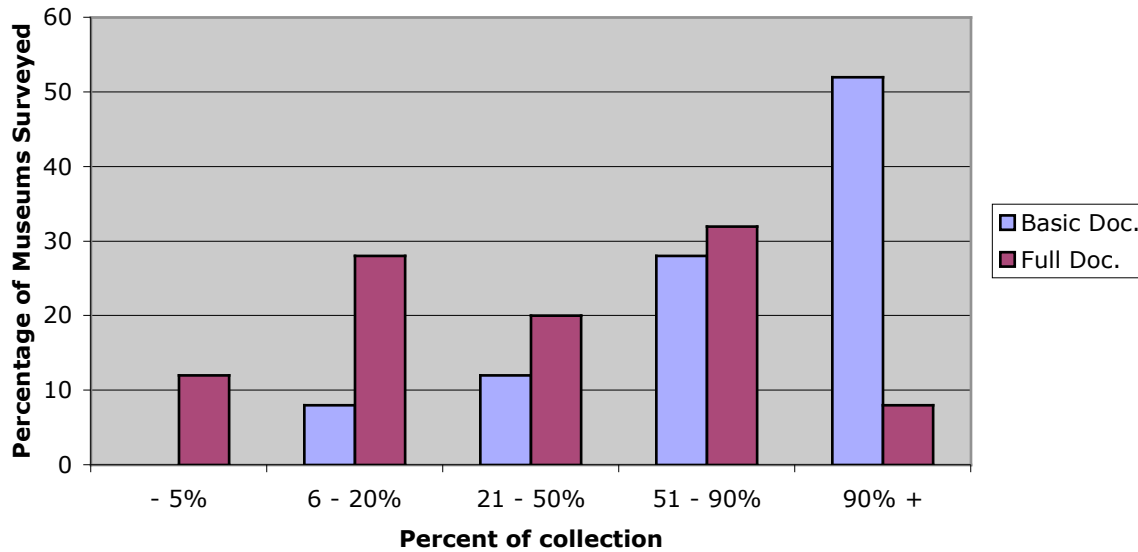
| Contrib | Contact               | CMS Vendor              | CMS Prod.     | Vers., Build        | Database              | Platform       |
|---------|-----------------------|-------------------------|---------------|---------------------|-----------------------|----------------|
| CAI_    | Saul Morse            | Argus                   | Argus         | 2b, pb7             | Oracle                | Unix           |
| TWAM    | Ryan Heilman          | Argus                   | Argus         | 2C_18               | SQL 6.0 Sybase        | NT             |
| AIC_    | Alan Newman           | Developed In House      | CITI III      | None                | 4D                    | NT, Mac        |
| WAC_    | Robin Dowden          | Developed In House      | Filemaker     | NA                  | FileMaker Pro 4.0 MAC | Mac            |
| CMA_    | Doug Hiwiller         | Developed In House      | NA            | NA                  | Sybase, Powerbuilder  | NT             |
| FASF    | Bob Futernick         | Developed In House      | NA            | NA                  | 4D                    | Mac            |
| LSM_    | Jeff Rubin            | Developed In House      | NA            | NA                  | Access 97 MS          | NT, 2000       |
| SFMO    | Marla Misunas         | Gallery Systems         | Embark        | 4.2.3               | 4D                    | NT             |
| TFC_    | Julie Shean           | Gallery Systems         | Embark        | 6.7.3               | Not Specified         | 2000           |
| DIA_    | Robert Hensleigh      | Gallery Systems         | TMS           | 8.5                 | SQL MS                | NT 4           |
| TMAA    | Sarah Blackwood       | Gallery Systems         | TMS           | 9.1                 | Not Specified         | NT             |
| WMAA    | Suzanne Quigley       | Gallery Systems         | TMS           | 9.0, 1098           | SQL 7                 | NT4            |
| BMFA    | Linda Pulliam         | Gallery Systems         | TMS           | 9.0, 1109           | SQL 7                 | NT             |
| DMA_    | Jacqueline Allen      | Gallery Systems         | TMS           | 9.1 , 1236          | SQL                   | NT             |
| MMA_    | Michael Jenkins       | Gallery Systems         | TMS           | 9.1, 1249           | SQL MS 7.0 svpk 2     | 2000, NT       |
| SAAM    | Mary Ellen Guerra     | Gallery Systems         | TMS           | 9.1, 1250           | Not Specified         | NT             |
| MIA_    | Scott Sayre           | Gallery Systems         | TMS           | 9.10, 1236          | SQL                   | NT             |
| JPGM    | Amy Noel              | Gallery Systems         | TMS           | 9.15, 1513          | Oracle                | Unix           |
| PMA_    | William Weinstein     | Gallery Systems         | TMS           | 9.15, 1519          | 1MS SQL 7.0           | NT 4           |
| GEH_    | Roger Bruce           | Gallery Systems         | TMS           | current 12/02       | ADABAS, soon SQL      | VMS soon, 2000 |
| CCP_    | Dianne Nilsen         | Inmagic                 | DBTextworks 3 |                     | Not Specified         | Not Specified  |
| VAM_    | Peter Ford            | Systems Simulation Ltd. | Musims        | v2.8                | Index +               | Unix, NT       |
| NGC_    | Guy Lacroix           | Willoughby              | MultiMimsy    | 2.5.2 c             | Oracle 8.1.7          | NT 4           |
| MACM    | Anne-Marie Zeppetelli | Willoughby              | MultiMimsy    | 2.5.2b Biling. Swap | Oracle                | NT, Mac        |
| AKAG    | Michael J. Benner     | Willoughby              | MultiMimsy    | 2.5.2d              | Oracle                | 2000           |
| LACM    | Delfin Magpantay      | Willoughby              | MultiMimsy    | 2.5.2e              | Oracle                | NT             |



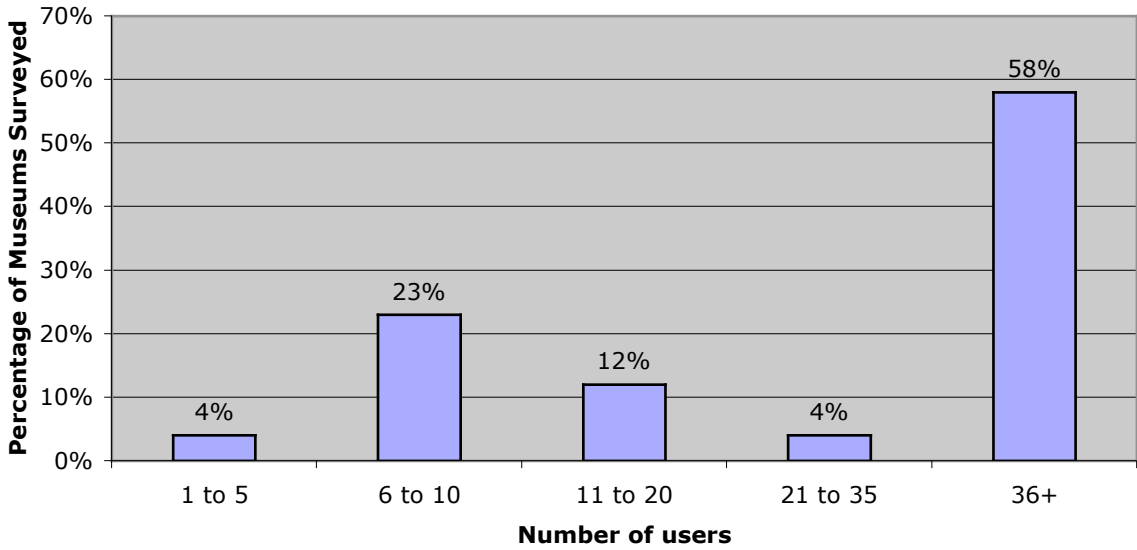
### 5. Who Supports Your CMS?



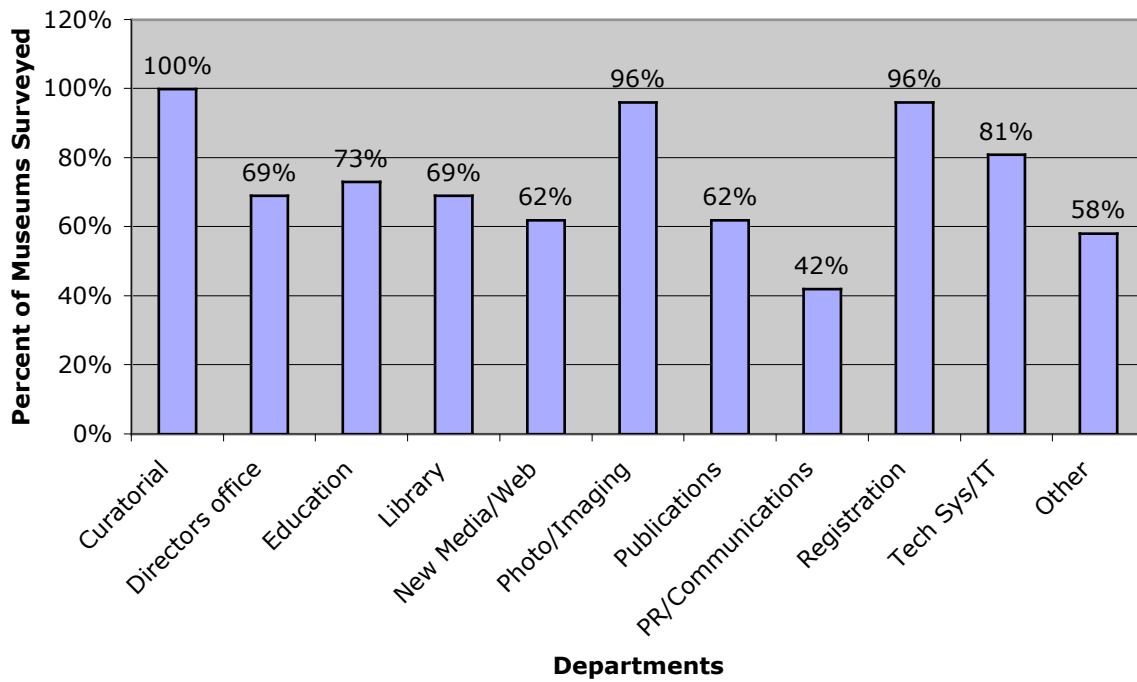
### 6. What percentage of collection is in your CMS?



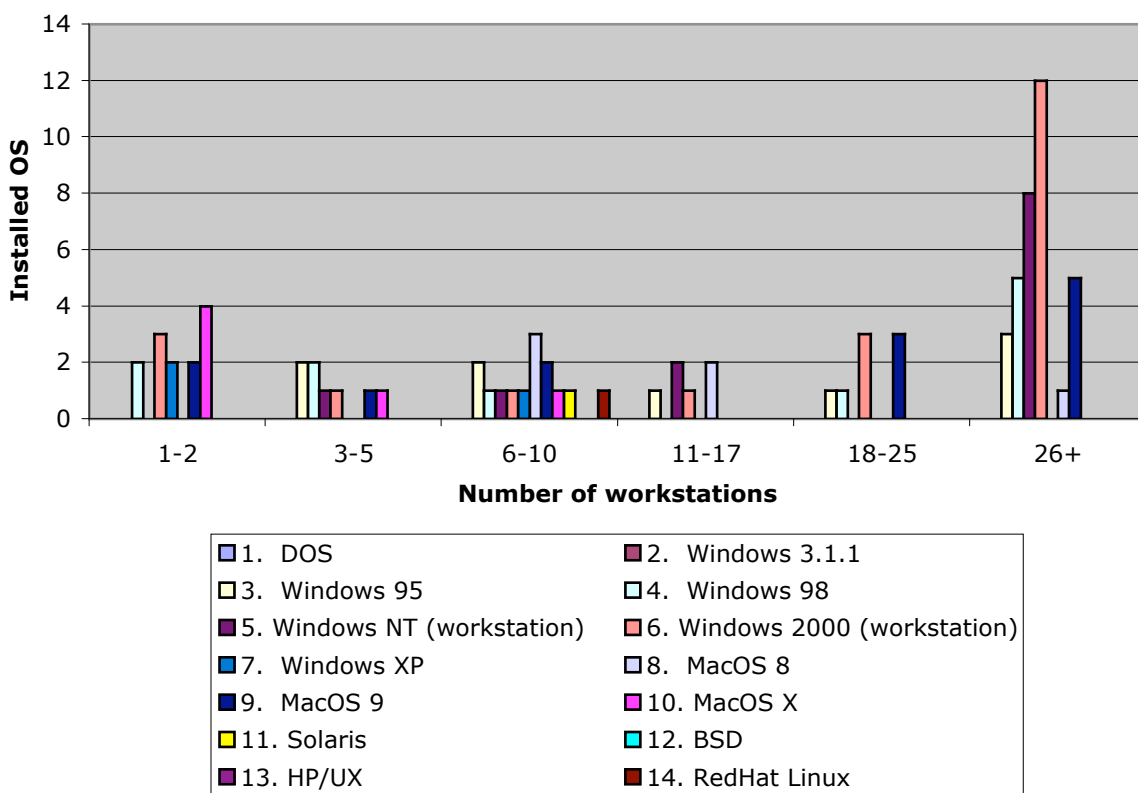
### 7. How many CMS users are there?



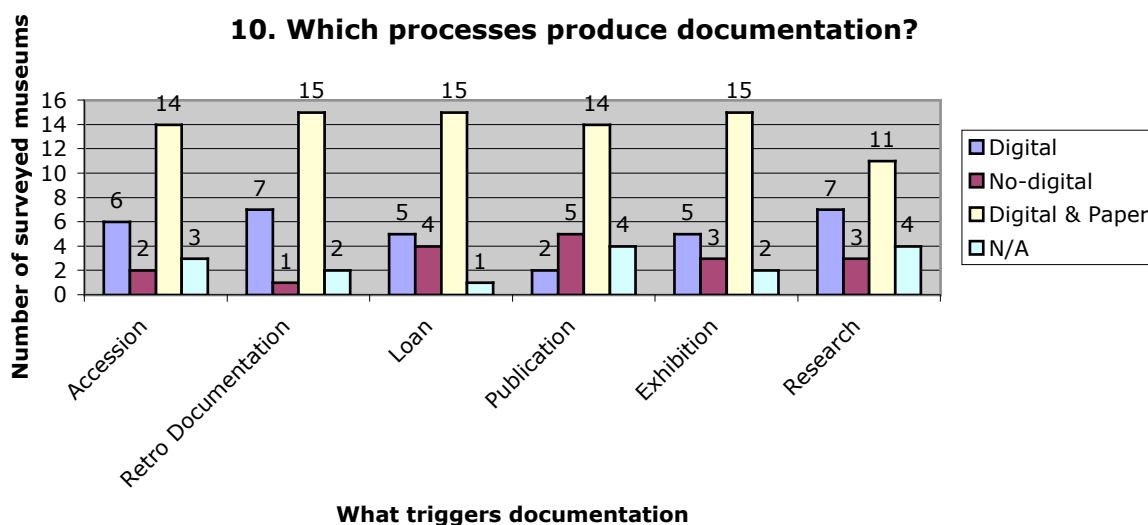
### 8. Which Departments access the CMS?



### 9. How many workstations and what OS?



### 10. Which processes produce documentation?



## Section 2: The AMICO Contribution Process

### 11. Describe your AMICO Data Export Process

| Contrib. | CMS         | Description of Export Process  |
|----------|-------------|--|
| CAI_     | Argus       | Using a data dump from Classic Argus as powerbuilder does not work with latest Argus. Then filtering out using ColdFusion from our intranet. Final cleanup is done by hand in Excel  |
| TWAM     | Argus       | Using ARGUS 2C_18, I run a report that contains all the information I need for AMICO. I export that report to Excel. I then spend hours adjusting the data so it is in the correct format for AMICO. Once done, I save in appropriate format and send to AMICO   |
| AIC_     | CITI III    | CITI: 4D tab delimited export object data; MacOS client Imaging Dept (metadata): Extensis Portfolio & Helix RADE, MacOS  |
| CCP_     | DBTextworks | Computer: Gateway E-1400. In Inmagic DBTextworks 3.0 collection database, flag records to be submitted with AMICO Library Year. Write records to a Word 97 file, using in-house designed report format that adds AMICO field tags and delimiters. Edit further: Indicate preferred title if more than one; remove date(s) from title(s) so they won't duplicate in AMICO display; edit date field down to year alone if more specific date given, so doesn't look 'ugly' in AMICO display; tie together nonrepeating fields with group tag; add field tag in multiple entries of repeating fields where report format didn't supply it; remove database-specific notes that would be meaningless to an outside reader, such as '(see GR [General Remarks])'; expand abbreviated codes that would be meaningless to an outside reader, such as PV (print verso); substitute Latin-1 characters for special characters (we use ALT-[3 digits] in our database). Submit to CMS. |
| TFC_     | Embark      | The Embark export report is edited in Embark. The selected cataloguing records are export into a text file. The text file is uploaded by the AMICO browser. The image files are created by the photography department. These are jpegs that are manually sized and converted to tiff files-- saved to a cd, and mailed to AMICO. The metadata records are created in our asset management database (iView) and for one batch we created a text export for them. The second we didn't create any.   |
| SFMO     | Embark      | Export text from EmbARK into a text file, cleaned in Excel, saved as text & uploaded.  |
| WAC_     | Filemaker   | In WACArt Database, fields have been added to indicate submission year, e.g., AMICO 2003, and AMICO permission status (Y, N, blank=unknown). Once final submissions are identified, media records are marked in a related Media Database (FM). Catalogue and media records are exported using FM layouts that provide AMICO field and record delimiters. Exports are tab delimited files that are modified in Word to remove special characters (e.g., FM repeating field symbols).  |
| MACM     | MultiMimsy  | spreadsheet.   |
| AKAG     | MultiMimsy  | I use Report Smith (version 3.11) in Oracle to generate the Core Data which I then put in a word document (Windows 2000) using the mail merge tool. I then use Report Smith to generate extra 'Non-Core' data. (Due to the requirements/limitations of the program this cannot be done in the same report as the Core Data.) The extra data is then merged into the core data - by hand - for every record that is submitted   |
| NGC_     | MultiMimsy  | We use a report generated by Oracle Reports 2.5 which sends out the information to a text file. We then upload this text file for validation via the CMS.  |
| LACM     | MultiMimsy  | Clean data are pulled from MultiMimsy using ReportSmith writer (Oracle. Report are saved in a text format. From the text format, it's exported into AMICO.   |
| VAM_     | Musims      | Bespoke project database (VB Client to Oracle database) used to source raw data. AMICI import structure created via Excel (VBA scripts and manual edit).   |
| CMA_     | NA          | Photo Studio determines availability of photography and rights clearance for potential pool of objects to be submitted. From this, they use their departmental MS Access database to store Collection Management System object identifiers and digital image names and photographic metadata elements. A query of this database generates the necessary driver information for several processes written in Powerbuilder that are run against our Collections Management System database that: 1.) change the file naming 2.) generate the metadata files and 3.) generate the catalogue records. Steps 1,2, and 3 are first iterative and successive in that errors and missing required data are remedied before moving to each subsequent step. Our renamed images are burned to DVD-ROM and shipped to AMICO. The data files are FTP'd to AMICO.   |
| LSM_     | NA          | Data was exported from the Louisiana State University Digital Library. These records were exported in a comma delimited text file and sent to Amico in excel.  |
| FASF     | NA          | Gather a set of records which we can now send based on new licensing agreements with rights organizations. Search for recently photographed works and compare these sets. Compare resulting set with previously submissions. Export records and attendant images. FTP or send cd's if submission is large.   |
| PMA_     | TMS         | Crystal report is run to produce export file. File is spot checked manually. Images are named and burned to cd as a manual process.  |
| BMFA     | TMS         | and exported the data to Excel where it was normalized. The Excel file was e-mailed to AMICO. For the March submission we wrote a Crystal Report that included all fields and exported the data to Excel where it was normalized. The Excel file was imported to SQL tables and then exported via another Crystal report. This report added AMICO tags, and the field and record delimiters. This report ran against the SQL tables much faster than it would have run against the entire database. This data was exported into a Word document as required by AMICO. (Special attention was paid to truncation when data went into Excel.) The Word document was e-mailed to AMICO for verification. Images were copied from the media folder using a customized tool; in Photoshop they were converted from jpeg to tiff files. They were put on 3 CDs and sent to AMICO by surface mail.  |
| JPGM     | TMS         | Select records to export, cross db query using SQL ArtAccess db and TMS and to eliminate previous records exported to AMICO. Brutally modify Seagate/ Crystal AMICO export report. SQL Query for image locations and list of objectIDs so Media specialist can batch process images for export.  |
| WMAA     | TMS         | We use a Gallery Systems created AMICO export report; we use text files to upload; we burn CD's with images and mail   |
| MMA_     | TMS         | Initially, we ran the AMICO export from TMS to send out the records, but this proved to be very labor intensive given the state of our records. For the last two years we have written our own Crystal Reports that have been run against one-off spreadsheets or databases with approved, edited content. We are held back from using any system created by Gallery Systems, because of the idiosyncratic use of our 20+ databases.   |
| TMAA     | TMS         | Having only just performed one export, with substantial support from persons at Gallery Systems and AMICO, the export process here is fairly primitive. Basically it involved obtaining a script and report from Dmitry at Gallery Systems, then working with him to tweak the report (he used remote access to get on my workstation and change what needed to be changed). Then I ran the report and forwarded the flawed results to Adam at AMICO. He then went over the report and found the flaws and inconsistencies, which I assisted him in cleaning up. I burned the JPEG images that we have on file onto CDs as well as emailed the JPEG files.   |
| DIA_     | TMS         | (PC) NT4 TMS Export via Crystal Reports, (Mac) to Filemaker - edit data - export to tab delimited file - open in BBEDIT - convert to DOS & ASCII. Image metadata created in Portfolio (Mac) - imported into FM and combined with object data for export.   |
| MIA_     | TMS         | In the last year we have moved from a Filemaker system to TMS. We will be dependent upon TMS's export process from this point on.  |
| SAAM     | TMS         | Identify records to contribute. Must have a digital image, clear copyright, and be catalogued. Adapt Gallery Systems Crystal Report. Download to text and edit the data. Upload to TMS.  |
| GEH_     | TMS         | We are mid migration from a legacy VMS/ADABAS system into Gallery Systems TMS. Will be using TMS tools.  |
| DMA_     | TMS         | The collections database staff person used Crystal Reports (I believe) to customize an export that is delivered to the project manager as an Excel spreadsheet.  |

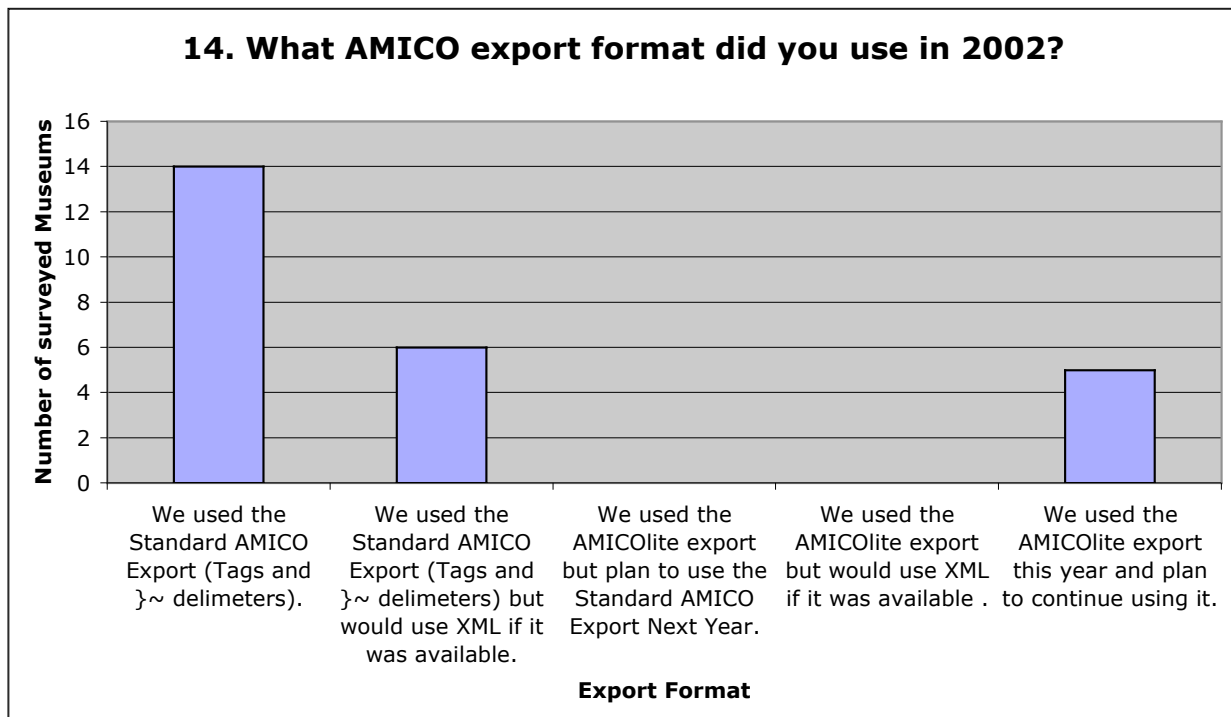
12. Which process best describes how you created your AMICO export?

| Contrib | CMS Prod.   | Reporting Function in Collections Management System | PreProgramed Report from a Collections Management Systems Vendor (which?) | Reporting Tools linked to Collections Management System (specify which eg Crystal Reports or Power Builder) | Report Developed by another AMICO Member (who?) | Custom Report from a Collections Management Systems Vendor (developed just for you. specify which) | Custom Report from Outside Contractor (developed just for you) | Custom Report Developed In House (specify language like perl or C) |
|---------|-------------|---|---|---|---|--|--|--|
| CAI_    | Argus       |   |   |   |   |  | Report created by Williams College Museum of Art.              | Use ColdFusion to parse report created above.                      |
| TWAM    | Argus       | Use Powerbuilder to create report.                  |   |   |   |  |  |  |
| AIC_    | CITI III    |   |   |   |   |  |  | 4D & Imaging Dept databases  |
| CCP_    | DBTextworks | need to edit further in Word                        |   |   |   |  |  |  |
| TFC_    | Embark      |   |   | Super Reports, Embark, edited a SFMOMA template   |   |  |  |  |
| SFMO    | Embark      |   |   |   |   |  |  | 4D   |
| WAC_    | Filemaker   |   |   |   |   |  |  | custom FM layout and standard export function                      |
| MACM    | MultiMimsy  |   |   | ReportSmith/ Data later altered for AMICO in Excel  |   |  |  |  |
| AKAG    | MultiMimsy  | modified and customized in house.                   |   |   |   |  |  |  |
| NGC_    | MultiMimsy  |   |   | Oracle Reports 2.5  |   |  |  |  |
| LACM    | MultiMimsy  |   |   | Use of reporting tool to CMS - ReportSmith  |   |  |  |  |
| VAM_    | Musims      |   |   |   |   |  | Data in CSV format followed by Excel manipulation.             |  |
| CMA_    | NA          |   |   | PB progs vs. CMS DB including exception reports   |   |  |  |  |
| LSM_    | NA          |   |   |   |   |  |  | excel  |
| FASF    | NA          |   |   |   |   |  |  | 4D's programming language  |
| PMA_    | TMS         |   |   | Crystal Reports developed inhouse   |   |  |  |  |
| BMFA    | TMS         |   |   | We created 3 Crystal Reports  |   |  |  |  |
| JPGM    | TMS         |   | Gallery Systems extensively modified by us.                               |   |   |  |  |  |
| WMAA    | TMS         | AMICO export report in Crystal Reports              | yes, Gallery Systems  | crystal reports   |   | first client for which this export was built   |  |  |
| MMA_    | TMS         |   |   |   |   |  |  | Crystal Report, see previous answer                                |
| TMAA    | TMS         |   |   | Crystal Reports   |   | Gallery Systems  |  |  |
| DIA_    | TMS         |   |   | Crystal Reports   |   |  |  | Filemaker  |
| MIA_    | TMS         |   |   |   |   | 2003 on TMS  |  | Filemaker up until 2003  |
| SAAM    | TMS         |   |   | Crystal Reports   |   |  |  |  |
| GEH_    | TMS         |   |   |   |   |  |  | Yes, with ADABAS using Natural                                     |
| DMA_    | TMS         |   |   | Crystal Reports   |   |  |  |  |

**13. What other systems provide data for your AMICO Library Contribution?  
How is this data integrated?**

| Contrib. | CMS         | Other systems and processes  |
|----------|-------------|--|
| AIC_     | CITI III    | CITI talks to Imaging Dept databases   |
| AKAG     | MultiMimsy  | NONE   |
| BMFA     | TMS         | None   |
| CAI_     | Argus       | File lookup on our digital image servers   |
| CCP_     | DBTextworks |  |
| CMA_     | NA          | Photo studio work tracking db in MS Access. Initial queries generated from this database drive the subsequent extraction processes run against the CMS |
| DIA_     | TMS         | Image metadata created in Portfolio  |
| DMA_     | TMS         | None; except for the images which are scanned and sent on CD; The images are later linked for reference in the CMS.                                    |
| FASF     | NA          | n/a  |
| GEH_     | TMS         | none   |
| JPGM     | TMS         | Images are processed separately and provided on CD.  |
| LACM     | MultiMimsy  | CMS through MIMSY  |
| LSM_     | NA          | catalog records created by our digital librarian   |
| MACM     | MultiMimsy  | none for now   |
| MIA_     | TMS         | None   |
| MMA_     | TMS         | Book publishing Quark files, the Timeline of Art History on our Web Site; This data is not successfully integrated with our CMS.                       |
| NGC_     | MultiMimsy  |  |
| PMA_     | TMS         | None   |
| SAAM     | TMS         | Rich text XML tagged kept in a word processing document was sent separately with Amico tags including SAAM's AID.                                      |
| SFMO     | Embark      | Filemaker. Integrated in Excel.  |
| TFC_     | Embark      | The three data types are created and sent separately.  |
| TMAA     | TMS         | N/a  |
| TWAM     | Argus       | None   |
| VAM_     | Musims      | British Galleries Project database. Contains Inventory data sourced from main CMS database.  |
| WAC_     | Filemaker   | The Media Database and WACArt Database are related by internal object id.  |
| WMAA     | TMS         | Antenna Audio uploads our audio files directly; other media files are sent by us on CD.  |

**14. What AMICO export format did you use in 2002?**





## Section 3: Collections Photography and Imaging

### 15. How many photography and digital imaging staff do you have?

| Museum | Photography Permanent Staff | Photography Temporary Staff   | Photography Interns or Volunteers | Photography External Contractor (Who?) | Digital Imaging Permanent Staff | Digital Imaging Temporary Staff | Digital Imaging Interns or Volunteers | Digital Imaging External Contractor | Are any of these the same people?              |
|--------|-----------------------------|-------------------------------|-----------------------------------|--|---------------------------------|---------------------------------|---------------------------------------|-------------------------------------|--|
| AIC_   |                             |                               |                                   |  | 8                               |                                 |                                       |                                     |  |
| AKAG   |                             |                               |                                   | Keystone Film Productions              |                                 |                                 |                                       | Keystone Film Productions           | yes  |
| BMFA   | 7                           |                               |                                   | 2                                      |                                 |                                 |                                       | 4 Part time                         | no   |
| CAI_   | 1                           |                               |                                   |  | 0.5                             | 0.5                             |                                       |                                     | no   |
| CCP_   | 1.75 (total staff)          | .75 (1-2 students @15 hrs/wk) | .25-1 (1-4 interns/volunteers)    |  | 1.75 (total staff)              |                                 | .75 (1-2 students @15 hrs/wk)         |                                     | yes: staff, most students/interns              |
| CMA_   | 2                           | 0                             | 1                                 | 0                                      | 2                               | 0.5                             | 0.5                                   | 0                                   | NO   |
| DIA_   |                             |                               | 2                                 |  | 2                               |                                 |                                       |                                     | Yes  |
| DMA_   | 2                           |                               |                                   |  | 2                               |                                 |                                       |                                     | no, but the photo's are doing digital capture. |
| FASF   | 1                           |                               |                                   |  |                                 |                                 |                                       |                                     | 2 people, both do both                         |
| GEH    | 1                           |                               |                                   |  | 1                               |                                 |                                       |                                     |  |
| JPGM   |                             |                               |                                   |  |                                 |                                 |                                       |                                     |  |
| LACM   | 3                           | 0                             | 0                                 | 0                                      | 1                               | 1.5                             | 1                                     | 0                                   | No   |
| LSM_   | 0                           | 0                             | 0                                 | Private photographers                  | 0                               | 3                               | 2                                     | 1                                   | no   |
| MACM   |                             |                               |                                   | 1 photographer                         |                                 | 1 very part-time                |                                       |                                     | no   |
| MIA_   | 2                           |                               |                                   |  | 0.5                             |                                 |                                       |                                     | no   |
| MMA_   | 10                          | 5                             | 5                                 |  |                                 |                                 |                                       |                                     | In transition, in pre-print to press test      |
| NGC_   |                             |                               |                                   |  |                                 |                                 |                                       |                                     |  |
| PMA_   | 2                           |                               |                                   |  | 2                               |                                 |                                       | Luna imaging for trans. scanning    | Digital imaging and Photo staff same           |
| SAAM   | 3                           |                               |                                   |  | 3                               | 1                               |                                       | Advanced Imaging Company            |  |
| SFMO   |                             |                               |                                   | Ben Blackwell                          | 2 part time (now reduced to 1)  |                                 |                                       |                                     | no   |
| TFC_   | 1                           |                               |                                   | 0.5                                    | 0.5                             |                                 |                                       |                                     | no   |
| TMAA   |                             |                               |                                   | Garry Henderson                        | 1                               |                                 |                                       |                                     |  |
| TWAM   | 2                           |                               |                                   |  | 1                               |                                 |                                       |                                     | No   |
| VAM_   | 15                          | 1                             | 2                                 | n/a                                    | 2                               |                                 |                                       |                                     | Yes  |
| WAC_   | 2                           |                               |                                   |  | 1                               |                                 |                                       |                                     |  |
| WMAA   | 0                           | 0                             | 0                                 | 2.5                                    | 0.5                             | 0                               | 0.1                                   | 0                                   | no   |

**16. What are your standard formats for visual reproductions of your works of art?**

| <b>Member</b> | <b>4x5 Color Transparency</b>         | <b>8x10 Color Transparency</b>        | <b>35mm Color Slide</b>                        | <b>8x10 Black and White Negative</b> | <b>8x10 Black and White Print</b>               | <b>Direct Digital Capture</b>                 |
|---------------|---------------------------------------|---------------------------------------|--|--------------------------------------|---|---|
| <b>AIC_</b>   | paintings                             |                                       |  |                                      |   | 3D & works on paper                           |
| <b>AKAG</b>   | reproduction                          | reproduction                          | reproduction and presentation                  |                                      | reproduction and presentation                   | reproduction and presentation                 |
| <b>BMFA</b>   | use 4x5 or 8x10 whatever is available | use 4x5 or 8x10 whatever is available | do not use for reproduction                    | Yes                                  | do not use for reproduction                     | yes when available                            |
| <b>CAI_</b>   | for existing where available          |                                       | for existing where available                   |                                      | for all that do not have transparencies         | for new acquisitions and prints/drawings      |
| <b>CCP_</b>   | publications                          | sometimes, but rare                   | educational/exh press/AMICO                    | sometimes, but rare                  | publication                                     | AMICO/Loans/publications/etc.                 |
| <b>CMA_</b>   |                                       |                                       |  |                                      |   | Standard + D. Print 8x10 of all D. captures   |
| <b>DIA_</b>   | Publication                           | Publication                           | Lectures/reference                             | Archive                              | Publication/reference                           | Archive/publication/reference                 |
| <b>DMA_</b>   | publication                           |                                       | lecture  | documentation                        | documentation                                   | publication; documentation                    |
| <b>FASF</b>   | our standard                          | small archive                         |  |                                      |   |   |
| <b>GEH_</b>   | publication, rights & repro.          |                                       | education, curatorial                          |                                      | publication, rights & repro.                    |   |
| <b>JPGM</b>   |                                       |                                       |  |                                      |   |   |
| <b>LACM</b>   | Catalog Publication                   | Catalog Publication / Poster          | Visual Resource Center                         | Photo Archives                       | Photo Archives & Curatorial                     | CMS, Press, Various                           |
| <b>LSM_</b>   | most photography                      |                                       | traveling exhibits/PR                          |                                      | upon request                                    | in-house use/upon request outside             |
| <b>MACM</b>   | publication in catalogue              |                                       | publication                                    |                                      | publication                                     | publication                                   |
| <b>MIA_</b>   | catalogs and brochures                |                                       |  |                                      |   | magazine and brochures                        |
| <b>MMA_</b>   | standard part of capture              | also standard                         | yes  | yes                                  | yes   | beginning, but currently do not have standard |
| <b>NGC_</b>   |                                       |                                       |  |                                      |   |   |
| <b>PMA_</b>   | publication                           | publication                           | research slide presentation                    | publication/record                   | publication record                              | web, record, presentation                     |
| <b>SAAM</b>   |                                       |                                       |  |                                      |   |   |
| <b>SFMO</b>   | print publications, web               | print publications                    | lectures                                       |                                      | black & white publications                      | print publications, web                       |
| <b>TFC_</b>   | publications                          | publications                          | lectures                                       |                                      | study   | publications                                  |
| <b>TMAA</b>   | For printed publications and website  |                                       | For website                                    |                                      | For printed publications                        |   |
| <b>TWAM</b>   | all work for publication              | no longer standard, not used          | for scholars, some scanning, some in-house use | not used anymore                     | archival/doc. publ., cataloguing, some scanning | Some for mug shots, will start doing more     |
| <b>VAM_</b>   | Repro quality                         | Repro quality                         | Record only                                    | Repro quality                        | Repro quality                                   | Repro quality and Record                      |
| <b>WAC_</b>   | permanent collection (pc)             | pc                                    | pc and installation views                      |                                      | pc and installation views                       | pc  |
| <b>WMAA</b>   | standard                              | standard                              | standard                                       | standard                             | n/a   |   |

**17. Which capture technologies are you using for digitizing your collection?**

| Member | 35mm Color Slide                                   | 8x10 Black and White Negative       | 8x10 Black and White print                      | 4x5 Color Transparency                      | 8x10 Color Transparency                  | Direct Digital Capture (specify type of work) |
|--------|--|-------------------------------------|---|---|--|---|
| AIC_   |  |                                     |   | paintings                                   |  | 3D (Phase1H20 pending) & copy(Phase1PowerFX)  |
| AKAG   | in house Nikon LS 1000 slide scanner               |                                     | in house Epson Expression 1600 flat bed scanner | out housed drum scanner or in house scanner | out housed drum scanner in house scanner | copystand work with a Phase One Studio Kit    |
| BMFA   | Scitex Eversmart Pro, Nikon Coolscan               | Scitex ESP, Epson 1680, Leaf Volare | Epson 1680                                      | Scitex ESP                                  | Scitex ESP                               | Volare, Sinarback 23HR                        |
| CAI_   | Nikon LS4000-30mb                                  |                                     |   | Microtek ScanMaker 8700-30mb                |  | Nikon D1-9mb (flats only)                     |
| CCP_   | Nikon LS1000 supercool scanner                     | Microtek III/Agfa Duoscan T2500     | Microtek/Agfa Duoscan T2500                     | Agfa Duoscan T2500                          |  | Betterlight Super 6K scanning back            |
| CMA_   | Imacon Flextight 848                               | Linotype-Hell Topaz                 | Linotype-Hell Topaz                             | Linotype-Hell Topaz, Imacon Flextight 848   | Linotype-Hell Topaz                      | Sinar Bron 23 HR Back + Phase One Powerphase  |
| DIA_   | Nikon scanner                                      | Agfa HiRes                          | Agfa HiRes                                      | Agfa HiRes                                  | Agfa HiRes                               | Imacon Flexframe 3020 2d/3d                   |
| DMA_   | FlexTight II Precision Imacon scanner              |                                     |   | Imacon Scanner/PhotoShop 6.0                |  | BetterLight scanback 6K                       |
| FASF   | early work: photoCD conversion of slides           |                                     |   | routine scanning of old and new             |  | most art now captured in this way             |
| GEH_   | in the past  | in the past                         |   |   |  | collections, index images                     |
| JPGM   |  |                                     |   |   |  |   |
| LACM   | Nikon LS4000 Scanner/Photoshop                     | Epson 1680 Scanner/Photoshop        | Epson 1680 Scanner/Photoshop                    | Epson 1680 Scanner/Photoshop                | Epson 1680 Scanner/Photoshop             | Sinarcam/Volare, Nikon D-100, Coolpix Camera  |
| LSM_   | some   |                                     |   | yes   |  | scanning of photo collection                  |
| MACM   | scanner  |                                     | scanner (rarely)                                | scanner                                     |  | Coolpix 950 (Tiff files)                      |
| MIA_   | Proformat PhotoCD                                  |                                     | Phase One H20                                   | Heil Scanner                                | Heil Scanner                             | Light Phase H20 48mb, Phase One 18mb          |
| MMA_   | yes, Leica and Leaf scanning stations              | same                                | same  | same  | same                                     | no standards set                              |
| NGC_   |  |                                     |   |   |  |   |
| PMA_   |  |                                     |   | Luna scanning /30MB                         |  | BetterLite cameras/30-40MB                    |
| SAAM   | Kodak 1000   |                                     |   | Eversmart Pro Sitex and Hiedleberg Topaz    |  |   |
| SFMO   |  |                                     |   |   |  | Betterlight camera, file size 50-60 MB's      |
| TFC_   | none   | none                                | none  | Epson flatbed scanner; Photoshop            | Professional drum scan                   | Hasselblad camera with digital back           |
| TMAA   | Kodak Gold CD; PCD files scanned by outside vendor |                                     |   |   |  |   |
| TWAM   | Photo cd, Transp. Scanner                          | none                                | Flatebed Scanner                                | Transparent Scanner                         | None                                     | Mugshots                                      |
| VAM_   | 12m/b scan   | 12m/b scan                          | 12m/b scan                                      | 35m.b scan                                  | 80m/b scan                               | 35m/b camera                                  |
| WAC_   | Nikon Super Cool Scan; OS 9.2; PS 6; 8000/4000     |                                     |   | AGFA Duoscan T2000 XL; PS 6                 | AGFA Duoscan T2000 XL; Foxdoor 3.6; PS 6 | Kodak OCR; Canon D-30/60; Leica S1scanner     |
| WMAA   | Mac;Duoscan;PhotoshopSilverfastLasersoftImaging;8+ | same                                | n/a   | same  | same                                     | n/a   |

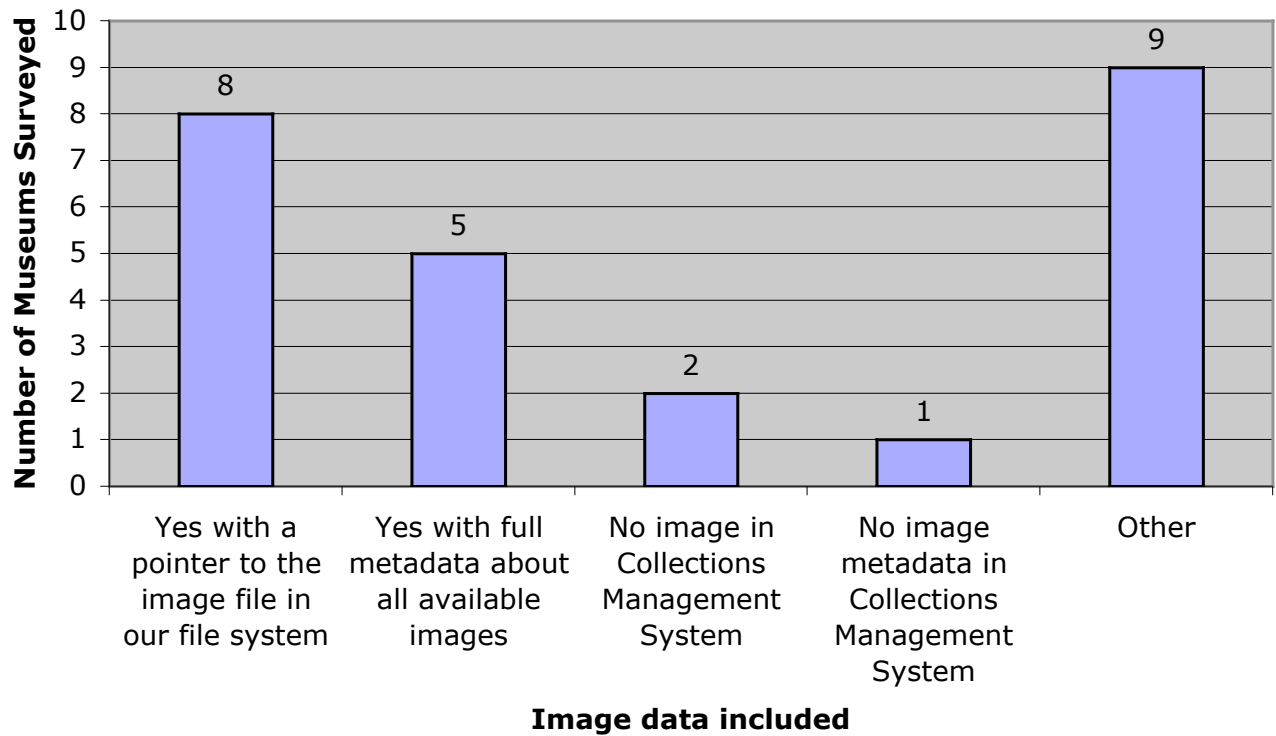
**18. Which standard formats have you set for digital reproductions?**

| Member | Resolution (Pixel Dimensions)                     | Bit Depth (24 bit 32 bit etc)             | File Size (in MB)                    | File Format (TIFF JFIF etc)               | Compression (Mr Sid LZW JPG etc)        | Color Space (RGB CMYK LAB etc)                    | Color Calibration                            | Color Management                                |
|--------|---|---|--------------------------------------|---|---|---|--|---|
| AIC_   | up to 5400 lpi                                    | 48  | up to 200mb                          | tiff                                      | none                                    | wide-gamut RGB                                    | Gretag Eye-one monitor calibrator            | Gretag Spectralino, Profile Builder & Colorsync |
| AKAG   | 300 - 400   |   | about 60 Meg                         | both Jpeg and Tif                         |   | CYMK or RGB                                       |  |   |
| BMFA   | 2K x 3K to 4K x 6K                                | 24 bit                                    | 15 mb - 125 mb                       | TIFF                                      | No compression                          | Adobe 98RGB, Monitor RGB                          | Cameras and monitors calibrated and profiled | Greytag Profiler Maker 3.15                     |
| CAI_   |   | 24 bit                                    | 30mb for scan/9mb for direct digital | TIFF                                      | Mr Sid for zoomable images, JPG for web | sRGB  | ColorVision                                  | software native                                 |
| CCP_   | many different for many purposes                  | 24 bit                                    | 5MB 1/4 pg repro 25-70MB full pg     | TIFF- publication JPEG-                   | JPEG Only                               | RGB   | Adobe Gamma                                  | Online Photoshop densitometer (info)            |
| CMA_   | varries on capture device; up to 5000ppi          | 48/24 highest possible by capture device. | 40-120                               | TIFF, PSD (temp for 16bit + LAB captures) | JPG and Mr. Sid for derivatives         | LAB when ever it is possible to capture it or RGB | Gretag Macbeth Profile Maker (software 4.1)  | ICC profiles for capture, print and display     |
| DIA_   | 300-1000  | 48/202                                    | 144 MG                               | TIFF                                      |   | RGB   | Colorvision                                  |   |
| DMA_   | 72 dpi (larger for print publication)             | 24 bit                                    | 10 mb                                | TIFF                                      | n/a                                     | RGB   | yes  | yes   |
| FASF   | 2k x 3k for most                                  |   | 18mb or 75mb for transparencies      |   | JPG                                     | rgb   | camera                                       |   |
| GEH_   |   | 24 bit (for index images)                 | 17-Mar                               | TIFF                                      | none for TIFFs, JPGs for index          | RGB   | in development                               | in development                                  |
| JPGM   |   |   |                                      |   |   |   |  |   |
| LACM   | 4' x 5' at 300 DPS                                | 24 bit                                    | Varies from                          | TIFF                                      | LZW                                     | RGB   | Photo Cal                                    |   |
| LSM_   | archival use: 600dpi; all other 300dpi            | 24-bit                                    |                                      | tiff                                      | LZW                                     | RGB   |  |   |
| MACM   | 2500 x 3000                                       |   | 34mb                                 | TIFF                                      | JPG                                     | RGB   |  |   |
| MIA_   | 4080 x 4080                                       | 24  | 48mb                                 | TIFF                                      | 0                                       | RGB   | Lacie Blue                                   | Light Phase                                     |
| MMA_   | no standards set                                  |   |                                      |   |   |   |  |   |
| NGC_   |   |   |                                      |   |   |   |  |   |
| PMA_   | 6000x4000   | 32 bit                                    | 30-40                                | TIFF                                      | JPG                                     | RGB   |  |   |
| SAAM   |   |   |                                      |   |   |   |  |   |
| SFMO   | varies  | 24  | 50 MB                                | TIFF                                      | none                                    | RGB   |  |   |
| TFC_   | 3200 x 4000                                       | 48 bit                                    | 72                                   | TIFF originals                            | JPEG for Web use                        | RGB   | none   | none  |
| TMAA   | have not set standard formates yet                |   |                                      |   |   |   |  |   |
| TWAM   | Varies (600 dpi for transp., 2000 dpi for slides) | at least 24 bit                           | Varies depending on size of image    | Tiff for archival/JPG for on-line         | JPG                                     | RGB   | Photoshop                                    | Photoshop                                       |
| VAM_   | 600 ppi   | 24 bit                                    | 35m/b                                | TIFF                                      | -                                       | RGB   | -  | -   |
| WAC_   | AGFA Duoscan, 500-2000 ppi                        | 24 bit                                    | 50 MB +                              | TIFF                                      | no compression                          | RGB   | Colorsync                                    | Colorsync, custom profile for each light set    |
| WMAA   | 1500 at greatest dimension                        | 32 bit                                    | 10-Aug                               | TIFF                                      | no compression                          | RGB   | yes  | laser soft HDR                                  |

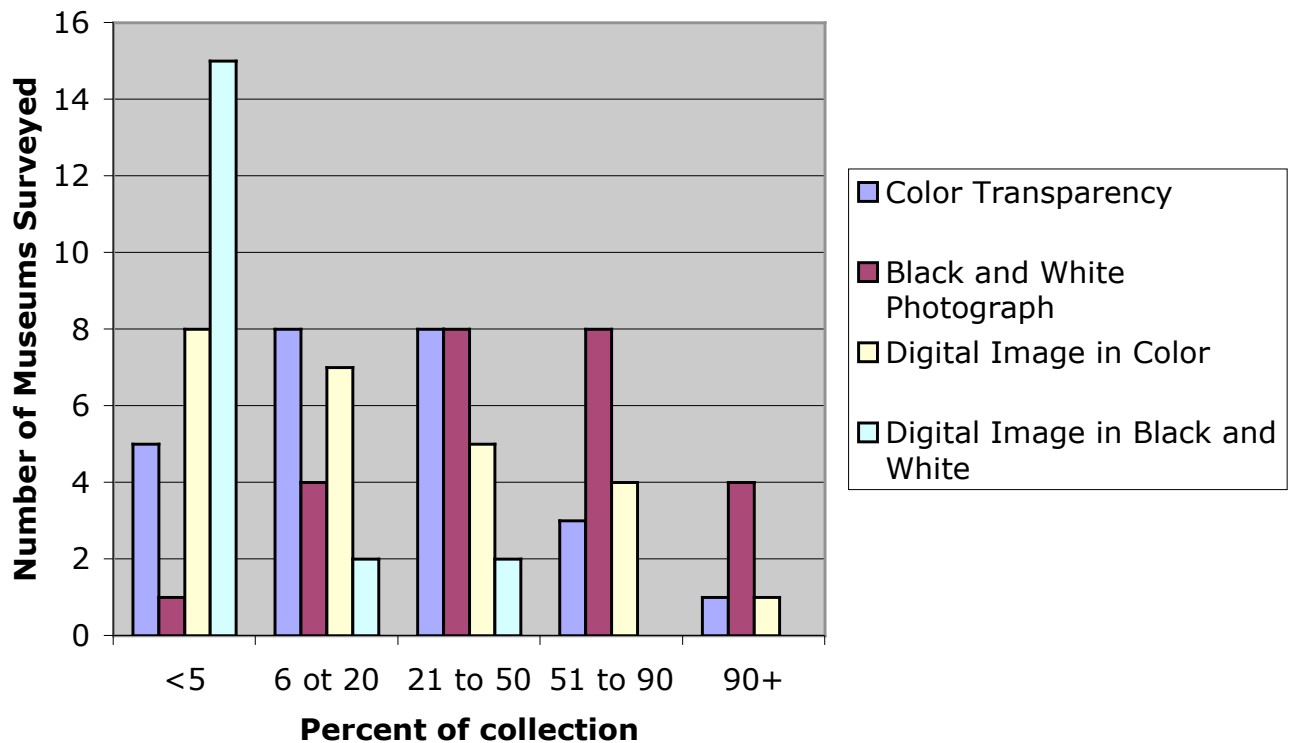
## 19. Which tools/software are used to manipulate images?

| Member | Image Sampling                       | Image Manipulation and Editing | Image Description and Metadata Management | Image File Management                            |
|--------|--------------------------------------|--------------------------------|---|--|
| AIC_   | Photoshop 7                          | Photoshop 7                    | Portfolio 6 and CITI (4D)                 | Portfolio 6 and CITI (4D)                        |
| AKAG   | Photoshop 5.5                        | Photoshop 5.5                  | Photoshop 5.5                             | Photoshop 5.5                                    |
| BMFA   | Leaf Capture 6.1, Photoshop 6.1      | Photoshop 6.1                  | Excel export to TMS                       | TMS  |
| CAI_   | Photoshop                            | Photoshop                      |   | Extensis Portfolio/Cold Fusion                   |
| CCP_   | PhotoShop                            | Photoshop                      | PhotoShop/Inmag ic                        | TIFFS on CD currently/JPEGS online               |
| CMA_   | Photoshop                            | Photoshop                      | MS Access                                 | Portfolio, MS Access, Insight                    |
| DIA_   |                                      | Photoshop                      | Portfolio                                 | Portfolio/Filemaker/TMS                          |
| DMA_   | ?                                    | Photoshop                      | none                                      | none   |
| FASF   |                                      | photoshop                      |   |  |
| GEH_   |                                      | Photoshop                      | TMS                                       | TMS  |
| JPGM   |                                      |                                |   |  |
| LACM   | Photoshop                            | Photoshop                      | Photoshop                                 | Photoshop, Access                                |
| LSM_   | silverfast                           | photoshop                      |   | cumulus  |
| MACM   |                                      | Photoshop                      | Multi Mimsy 2000                          | Windows  |
| MIA_   | Photoshop 7                          | Photoshop 7                    | TMS                                       | TMS  |
| MMA_   | various                              | Photoshop                      | Studio Workhorse/TMS                      | Studio Workhorse/TMS                             |
| NGC_   |                                      |                                |   |  |
| PMA_   |                                      | Photoshop 7.0                  |   |  |
| SAAM   |                                      | Photoshop 6.0.1                |   |  |
| SFMO   |                                      | Photoshop                      | EmbARK                                    | Photoshop  |
| TFC_   |                                      | Photoshop                      | Cumulus and iView                         | Cumulus  |
| TMAA   | Do not manipulate digital images yet |                                |   | JPEG files linked to TMS; reside on common drive |
| TWAM   | Photoshop                            | Photoshop                      | Qscan                                     | Qscan  |
| VAM_   | Photoshop                            | Photoshop and Debabalizer      | Index +                                   | None   |
| WAC_   |                                      | Photoshop 6.0                  | FileMaker Media Database                  |  |
| WMAA   | n/a                                  | PhotoShop                      | TMS                                       | TMS  |

## 20. Is image data included in the CMS?



## 21. What percent of your collection has visual surrogates?

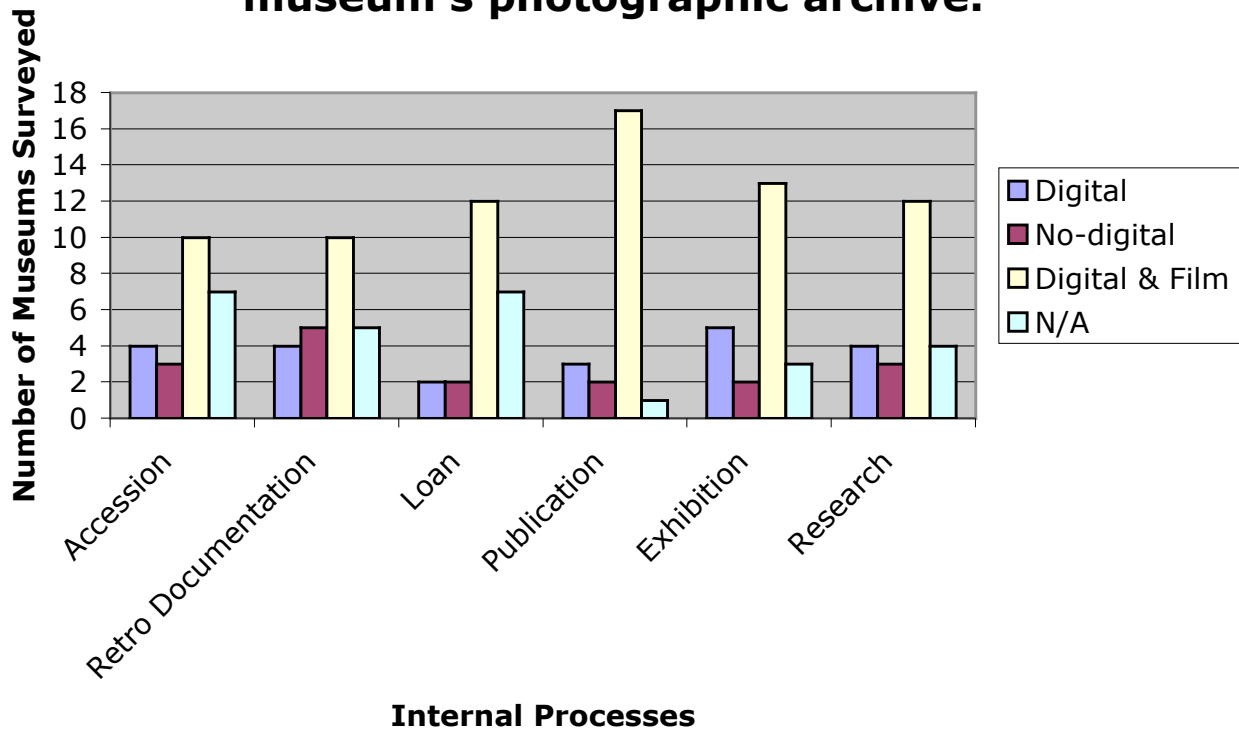


## 22. How do you send your images to AMICO?

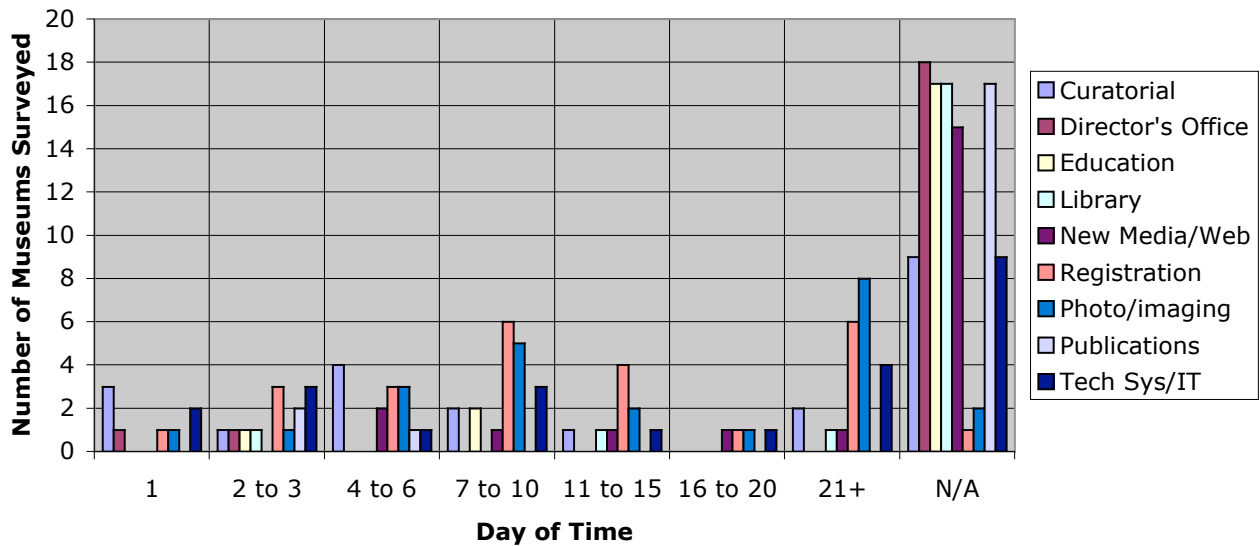
| Members | Mac formatted CDs | PC formatted CDs   | Mac formatted DVDs             | PC formatted DVDs | Mac formatted DVDs | Other please specify                    |
|---------|-------------------|--|--------------------------------|-------------------|--------------------|---|
| AIC_    | 2 each year       |  |                                |                   |                    |   |
| AKAG    |                   | over 2500  |                                |                   |                    |   |
| BMFA    |                   |  | 3                              |                   |                    |   |
| CAI_    |                   | ~13  |                                |                   |                    |   |
| CCP_    | ~8 CD's 2002      | ~12 CD's 2002/<br>~6 CD's 2001                             |                                |                   |                    | used FTP<br>1998,1999,2000              |
| CMA_    |                   |  | 2 MAC/PC<br>formatted<br>DVD's |                   |                    |   |
| DIA_    |                   | 2 each year  |                                |                   |                    |   |
| DMA_    |                   | CD's I don't<br>remember how<br>many                       |                                |                   |                    |   |
| FASF    | 15,000            |  |                                |                   |                    | remaining<br>images on hard<br>disks    |
| GEH_    |                   | 12 per year  |                                |                   |                    | small numbers<br>via FTP                |
| JPGM    |                   |  |                                |                   |                    |   |
| LACM    |                   | Yes,<br>approximately<br>3300+                             |                                |                   |                    |   |
| LSM_    |                   | approximately<br>10 CDs                                    |                                |                   |                    |   |
| MACM    |                   |  | 1                              |                   |                    |   |
| MIA_    | Typically 3       |  |                                |                   |                    |   |
| MMA_    | 30%               | 70%  |                                |                   |                    |   |
| NGC_    |                   |  |                                |                   |                    |   |
| PMA_    |                   | all  |                                |                   |                    |   |
| SAAM    |                   |  |                                |                   |                    |   |
| SFMO    |                   |  |                                | 3                 |                    |   |
| TFC_    |                   |  | 2                              |                   |                    |   |
| TMAA    |                   | 7; didn't work<br>not high res,<br>don't have<br>Photoshop |                                |                   |                    | FTP                                     |
| TWAM    |                   |  | 1                              |                   |                    |   |
| VAM_    |                   |  |                                |                   |                    | 6 CDs using<br>ISO 966 Open<br>Standard |
| WAC_    | all               |  |                                |                   |                    |   |
| WMAA    | x                 |  |                                |                   |                    |   |

## Section 4: The AMICO Contribution Process

### 23. Functions producing images for the museum's photographic archive.

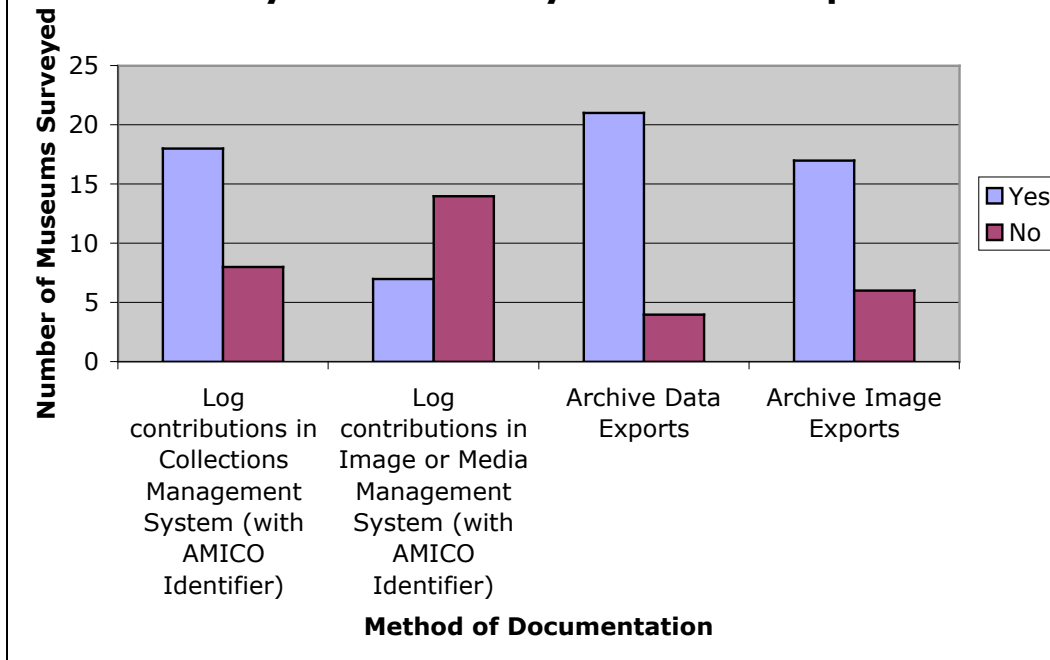


### 24. Time spent by each department on AMICO contribution.





## 25. Do you document your AMICO exports?



## 26. What indexing AMICO generated data would you incorporate into your CMS?

| Member | Creator Biographical Information (with ULAN IDs if available) | Culture Hierarchies (North American   Native American   Sioux   Lakota) | Date Indexing (circa 1680 with Earliest: 1671 and Latest: 1689) | Materials and Techniques Indexing (descriptions with Media and Support index terms and AAT references when available) | Other (please specify)                |
|--------|---|---|---|---|---------------------------------------|
| AIC_   | maybe   | no  | no  | no  | parsed dimensions & AMICO object type |
| AKAG   |   |   |   |   |                                       |
| BMFA   | not sure  | not sure  | not sure  | not sure  |                                       |
| CAI_   |   |   |   |   |                                       |
| CCP_   |   |   |   |   |                                       |
| CMA_   |   |   |   |   |                                       |
| DIA_   | tab-delimited   | tab-delimited   | tab-delimited   | tab-delimited   |                                       |
| DMA_   |   |   |   |   |                                       |
| FASF   | yes, tab delim.   | yes, tab delim.   | yes, tab delim.   | yes, tab delim.   |                                       |
| GEH_   |   |   |   |   | welcome feedback from users           |
| JPGM   |   |   |   |   |                                       |
| LACM   | Tab-dilimeter   | Tab-delimeter   | Tab-delimeter   |   | keywords, Subject indexing            |
| LSM_   |   |   |   |   |                                       |
| MACM   |   |   |   |   |                                       |
| MIA_   | xml   | tab delimited   | tab delimited   | tab delimited   |                                       |
| MMA_   |   |   |   |   |                                       |
| NGC_   |   |   |   |   |                                       |
| PMA_   |   |   |   |   |                                       |
| SAAM   | XML or tab-delimited  |   |   | XML or tab-delimited  |                                       |
| SFMO   | yes   | yes   | yes   | yes   |                                       |
| TFC_   |   |   |   |   |                                       |
| TMAA   |   |   |   |   |                                       |
| TWAM   | No  | No  | No  | No  |                                       |
| VAM_   | Yes XML   | Already use AAT<br>Yes XML  | No already have this  | No already have AAT   | n/a                                   |
| WAC_   | XML or tab-delimited  | XML or tab-delimited  | XML or tab-delimited  | XML or tab-delimited  |                                       |
| WMAA   | yes   | n/a   | n/a   | yes   | n/a                                   |

**Question 27: Which aspects of the AMICO Export pose the greatest challenges and why?**

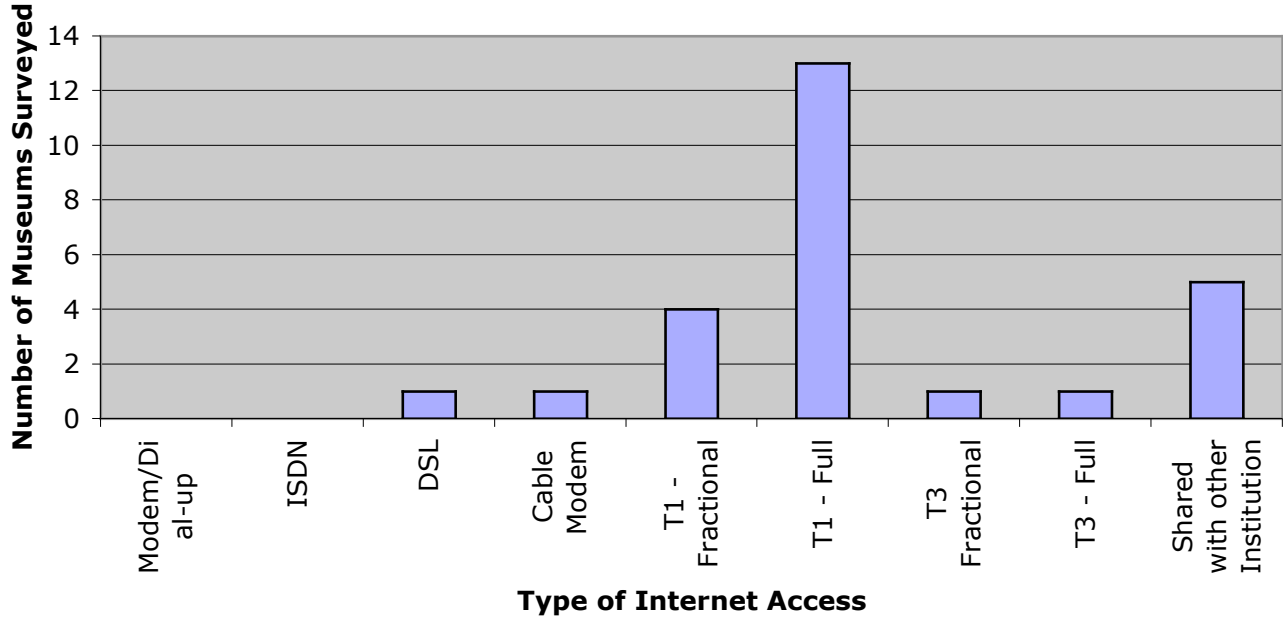
| Member | CMS         | Response  |
|--------|-------------|---|
| AIC_   | CITI III    | selecting objects and reviewing data  |
| AKAG   | MultiMimsy  | 1) The standardized list do not always match our categories (Example : you 'Drawings and Watercolors' we use 'Unique Works on Paper') thus we have to systematically replace our standard by yours for any field that is validated against a special list of terms.<br>2) You cannot submit part of a record. To make a change or add more info you have to submit the full record again or use the contribution management system - one record at a time.  |
| BMFA   | TMS         | Submitting large numbers of records is very time consuming. Submitting records with multiple artists names is too complicated with the process we use. Burning DVDs for large numbers of records is very time consuming; sending multiple images for one object record is troublesome.  |
| CAI_   | Argus       | Poor exporting capabilities of Argus  |
| CCP_   | DBTextworks | Loading AMICO formatted text before submission. Loading image files with proper naming, orientation, needing to deal with CDs rather than online permanent storage - No RAID system yet. Coordinating bifurcated text and image contributions so they match. (We hope to add AMICO-based image metadata fields to our collection database before next year's submission that can be incorporated into our text submission; we have yet to supply that information.)   |
| CMA_   | NA          | Communication throughout the year between I.T. and the Photography and Digital Imaging services as the latter prepares the next year's submission based on available photography. This has revealed a lack of a system to prevent resubmission of objects from a previous AMICO submission as the loop is not closed. (i.e. the submitted results are not archived in the MS Access database that P & D.I. uses.)   |
| DIA_   | TMS         | Cleaning up the data  |
| DMA_   | TMS         | creating the list; clearing the rights; compiling curatorial input; editing text - all time consuming and on top of normal work load; not a part of the daily work expectations of any department in particular.  |
| FASF   | NA          | The first challenge is continuing the imaging effort, which produces the digital resource. The challenge is not how to do it, but the funds for art handler and photographer salaries. The second challenge is improvement of our records which should first involve conversion of important paper based information to our collection database. Secondly, it should involve application of curatorial energy, yielding short descriptive catalog entries for [most] important works [first] including improved artist, date, size, and regional information. Again, we could use the infusion of funds for this important activity. Perhaps AMICO could serve as a conduit for grant submissions and funds distribution dedicated to its growing library of world art resources. |
| GEH_   | TMS         | writing TIFFs to CD. Slow burns.  |
| JPGM   | TMS         | Selecting the record set is complicated in our version of TMS because 'not equal to' function in Query doesn't work. The Seagate report for export must be extensively modified, because obviously not all TMS clients use TMS the same way. It's a complicated report and very slow 4 or 5 minutes per record. CLOB fields cannot be included in subreports and thus were not included in our 2002 export even though the information is in TMS.   |
| LACM   | MultiMimsy  | Exporting is pretty easy - it's dealing with the correction of datas once it's exported to AMICO.   |
| LSM_   | NA          | naming convention   |
| MACM   | MultiMimsy  | The data on artworks changes and we do not want to make corrections in 2 different databases. So, the challenge is how to get it to happen in an automated way.   |
| MIA_   | TMS         | Lack of robust TMS export   |
| MMA_   | TMS         | creation, editing, and storage of information surrounding the collection and the inconsistent use of fields within our databases.   |
| NGC_   | MultiMimsy  | #NAME?  |
| PMA_   | TMS         | For the whole process, the greatest challenge is to get the curators to proofread their records. But they are getting used to this new annual task. Technically, the greatest challenge was the creation of our own Crystal Report that produced all the required fields formatted properly. Last year we tried to adapt the Gallery Systems report and it never worked properly. Now we have a solid report that we can enhance and adapt as desired.  |
| SAAM   | TMS         | The process has never gotten any simpler or speedier. I want to contribute to more data fields, but it is so time consuming to contribute the amount I do send, I can't afford to send more. As we change versions and builds in TMS, the export needs modifications and it would be helpful to have a stable export mechanism. Then I might be able to spend time adding another type of data each year.   |
| SFMO   | Embark      | Additional detailed metadata we don't normally track in EmbARK like multi-media info.   |
| TFC_   | Embark      | challenge.  |
| TMAA   | TMS         | house with any extensive knowledge of exporting data. Also don't have anyone on staff who is very experienced with digital imaging  |
| TWAM   | Argus       | Length of time to correct data and create export. With other tasks to be completed at museum, rarely do we have time to focus on AMICO.   |
| VAM_   | Musims      | Finding data from in-house database/s where there is no direct match with AMICO field criteria. A result of no universal deployment of a comprehensive core data standard.  |
| WAC_   | Filemaker   | Process is clumsy and not well enough defined or systematized for anyone to perform except Dowden.  |
| WMAA   | TMS         | time frame for submission   |

**28. Do you have any suggestions for making the AMICO Export Process easier?**

| Member | CMS         | Response:  |
|--------|-------------|--|
| AIC_   | CITI III    | rolling contributions throughout the year  |
| AKAG   | MultiMimsy  | It would be a great help if you could submit parts of records instead of having to re-submit whole records. For Example: Say you have 100 records that you previously submitted. Say that in one year those 100 records got new bibliographies or new exhibition histories which you wish to add to AMICO. In order to add that data to AMICO using the current submissions process you have to re-submit the whole record (i.e. all the core data fields and the extra fields.) Since every record has a unique identifier, namely the AID line, it would be nice if you could just submit the AID line and whatever other lines you wish to add or change (i.e. the OEH or RDG/RDR/RDD group.) Of course you can just edit the record in the Contribution Management System by hand - but if you are dealing with 100's of records that does not become practical. |
| BMFA   | TMS         | Make it easier to update individual fields for all records without resubmitting full data records. Make it easier to update images (replace black and white images with color images, for instance), without requiring the resubmission of entire data records. Allow the submission of Excel files rather than word files.  |
| CAI    | Argus       |  |
| CCP_   | DBTextworks | Not at the moment that you can help with.  |
| CMA_   | NA          |  |
| DIA_   | TMS         |  |
| DMA_   | TMS         | Share benefits and stats on use with all member institutions - focus the benefits to the use of the member's records so that other staff can buy into the benefits of membership.  |
| FASF   | NA          | The actual mechanics are easy at our end. Larger submissions have been a problem because of ftp issues. Improvement here would help. However, the use of inexpensive media and the mail is a pretty easy alternative.  |
| GEH_   | TMS         | no   |
| JPGM   | TMS         | XML tags might make it easier.   |
| LACM   | MultiMimsy  | None at this time  |
| LSM_   | NA          |  |
| MACM   | MultiMimsy  |  |
| MIA_   | TMS         | Work with Gallery systems to finalize export with a customizable interface to remap fields which may be utilized differently by different institutions   |
| MMA_   | TMS         |  |
| NGC_   | MultiMimsy  |  |
| PMA_   | TMS         | I can't think of anything much. They present a list of required fields, they help you test your export, they tell you what needs fixing. Perhaps if they could evaluate the entire export before sending off requests for changes, that would help. I had to resend about four times.  |
| SAAM   | TMS         |  |
| SFMO   | Embark      | We have streamlined it a lot so I'm not sure what else we could do.<br>Additional note to #25: we document all AMICO files sent on paper.<br>#23: depends on the object  |
| TFC_   | Embark      |  |
| TMAA   | TMS         | If there were a way to get a seamless report to run off of Museum Systems, the export process would be a snap for us and any others who have their collection extensively documented in TMS.   |
| TWAM   | Argus       | AMICO needs to work with software companies to create predefined exports.  |
| VAM_   | Musims      | Not at the moment, but future data submissions may offer some possible suggestions worth mentioning.   |
| WAC_   | Filemaker   |  |
| WMAA   | TMS         | AMICO and Gallery Systems do not appear to be communicating regarding changes in field tags in order that GS can update the export report for clients.   |

## Section 5: Technology Support, Infrastructure and Staffing

### 29. What sort of internet access does the museum have?



### 30. What IT support does the museum have?

