

All Data

What is your job title?

Response	Count	
Archivist	37	41.6%
Records Manager	7	7.9%
Project archivist (i.e. grant funded)	1	1.1%
Librarian	9	10.1%
Educator	1	1.1%
Other, please specify...	51	57.3%
Total: 89		

Curator
Curator
Archivist/IRM
Interim Curator
Digital Archivist
Digital Archivist
Hybrid librarian/records manager
Lecturer in Archives and Special Collections
Chancellor
CAD Manager
CAD Manager
Engineering Technician Supervisor
CAD/GIS Technician

CAD/GIS Technician

I handle all of the data, records, drawings related to Facilities.

GIS AND CAD USER

Coordinator, Archive Digitization Project

Project Coordinator

Records Section Supervisor

Facilities Plans Coordinator (aka Plans Librarian)

Archives Manager

GIS Technician

Digital archivist

Manager, Facilities Information Services

Engineering Technician

Project Manager / Records Manager

Facility Library Manager

AutoCAD Technician & Archivist

Principal

Project Manager

Design Technology Manager

Architect

Architect

Architect

Architect/Firm Owner

bim

Owner/Architect

Architect

Architect
CAD Technician
Principal
Experienced consultant
Designer/BIM Manager
Document Management Specialist
Manager
Manager
Senior Architectural Designer / Project Manager
Archive Data Manager
Firm Principle

At what institution/firm do you work?

Response	Count
	60 responses

Sasaki Associates
Library of Congress
Harvard University
University
Boston Architectural College
University of Kentucky Facilities Management
University
CallisonRTKL, Inc.
Sterling and Francine Clark Art Institute
Georgetown University

Yale University Library/Manuscripts and Archives

University of Minnesota

Canadian Centre for Architecture

Canadian Centre for Architecture

Cornell University, Facilities Construction Doc Archives - not the central library

Central Washington University

Imperial College London

Architect of the Capitol

Diocese of Steubenville

University

Washington State University

University of North Carolina Wilmington

Lewis & Clark College

Marshall University

Northwestern University

Washington State University

University of Texas at Austin

Princeton University

Oklahoma State University

Virginia Tech, Blacksburg, VA

Chemeketa Community College

The Portman Archives, LLC

University of Colorado Boulder

Public library

UIC

Stanford University

Stanford University

University of Colorado Boulder

Caltech

University of Maryland

University of Notre Dame

Massachusetts Institute of Technology

Architectural Office

Spillman Farmer Architects

GGLO

Architectural firm

Architectural

pw

Architectural firm

Dahn & Krieger

Private, Sole Practitioner Architectural firm designing or renovating buildings.

University of Alaska Fairbanks

Francois de Menil Architect, PC

Formerly with Department of Defense - currently own firm.

BDS Architects

GGLO

GGLO

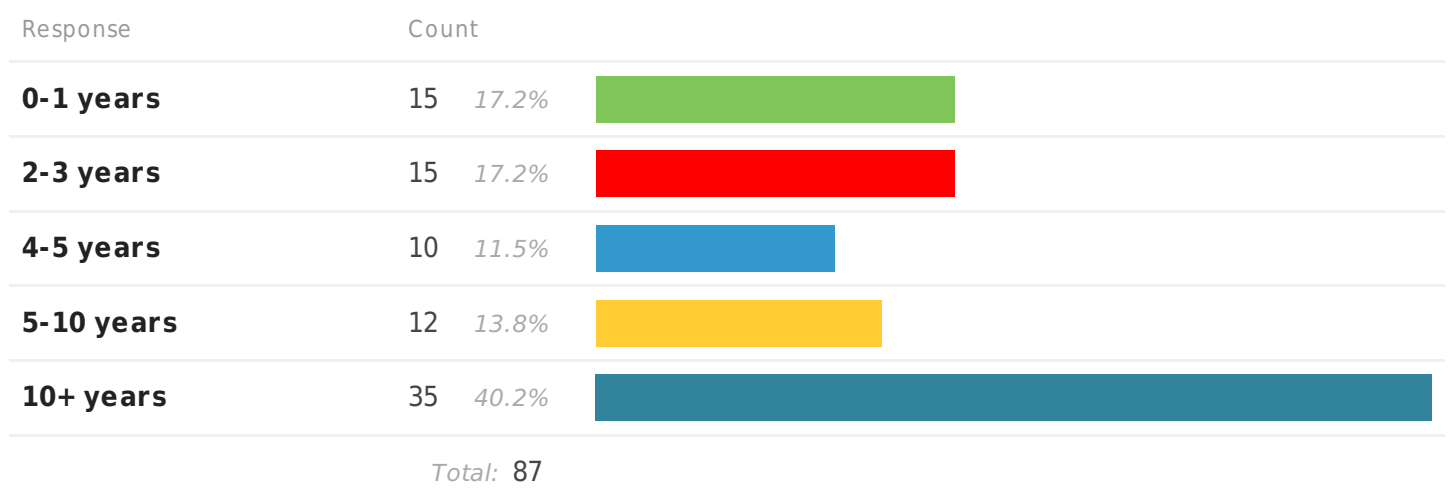
Dewberry

The Ohio State University

The Ohio State University

HPC Architecture

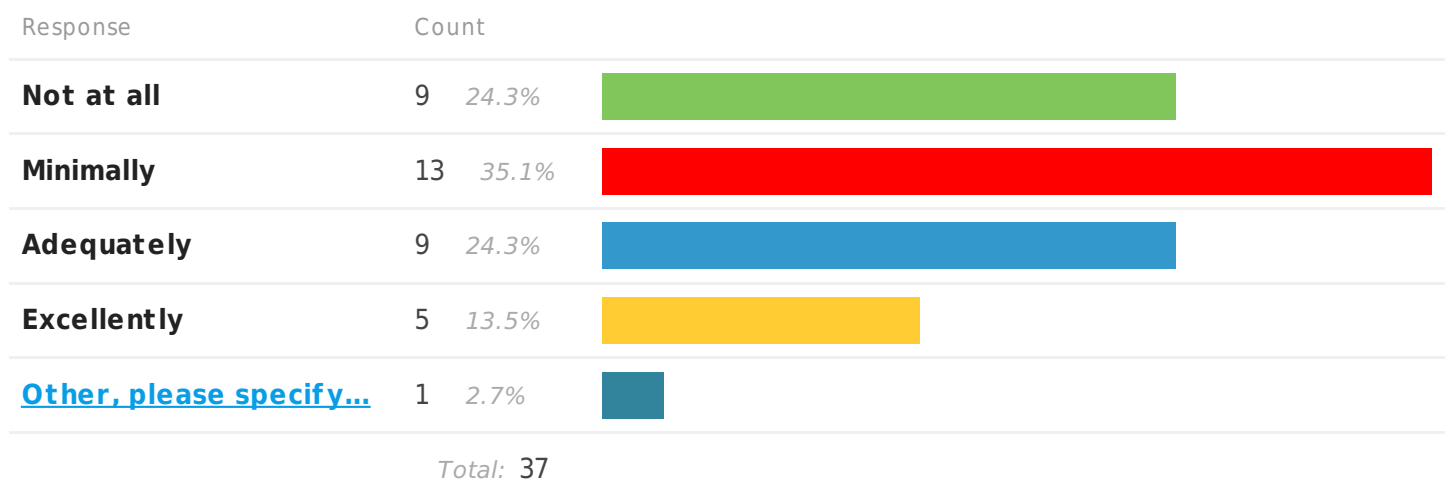
How many years have you worked with born-digital design records?



Have you attended any workshops or received formal training on how to manage born-digital records?



How well did the training address born-digital design files?



Design records were not part of the training, but the processing information was relevant

What organization or institution sponsored the workshop or training?

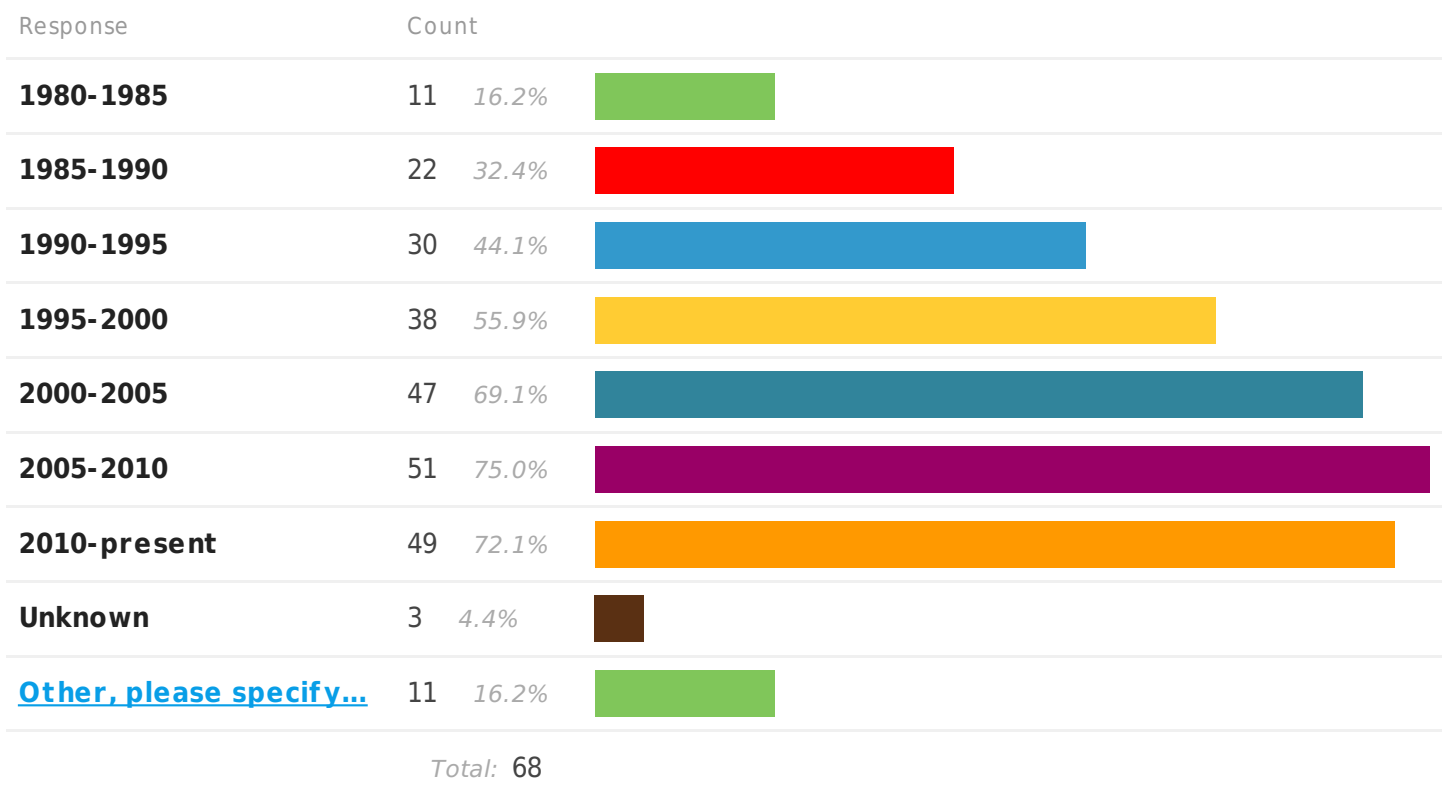
Response	Count
	37 responses
Simmons College - graduate course "digital preservation"	
SAA, NEA, NEDCC	
SHRAB and Ky Council on Archives would sponsor SAA and other types of workshops so that members could attend free	
University	
SAA	
n\	
MIT	
Pratt Institute	
Society of American Archivists, CCAHA	
SAA	
Society of American Archivists	
UMN presenters: Library Technology Conference 2015 at Macalester College: Demystifying Digital Records Processing	
SAA	
Library Science school	
SAA	
SAA, MARAC	
SAA	
RIBA	
SAA	
SAA	
SAA	

ARMA
Washington State Archives
SAA and The Texas State Archives
Society of American Archivists
Unity Business System and Laserfiche DMS
SAA
SAA
SAA
Academic
ACAD-Plus, Blue Cielo Meridian Enterprise Document Management System
New England Archivists
AIA
AIA
Univeristy of Denver's MLIS program
Internal training, and American Institute of Architects guidelines
History San Jose

Was the workshop part of a formal continuing education or cerification program?

Response	Count	
Yes	20	54.1%
No	17	45.9%
<i>Total: 37</i>		

What is the creation timeframe of the born-digital design records your repository holds? Please check all that apply:



We are still determining the answer to this question

2000-Present

We're not collecting any yet

To my knowledge, no born digital design records have been donated.

Possibly before 1995, but I haven't seen them that old.

1910 to present drawings

I work with construction drawings and the accompanying materials dating back to the early 1920's in most cases.

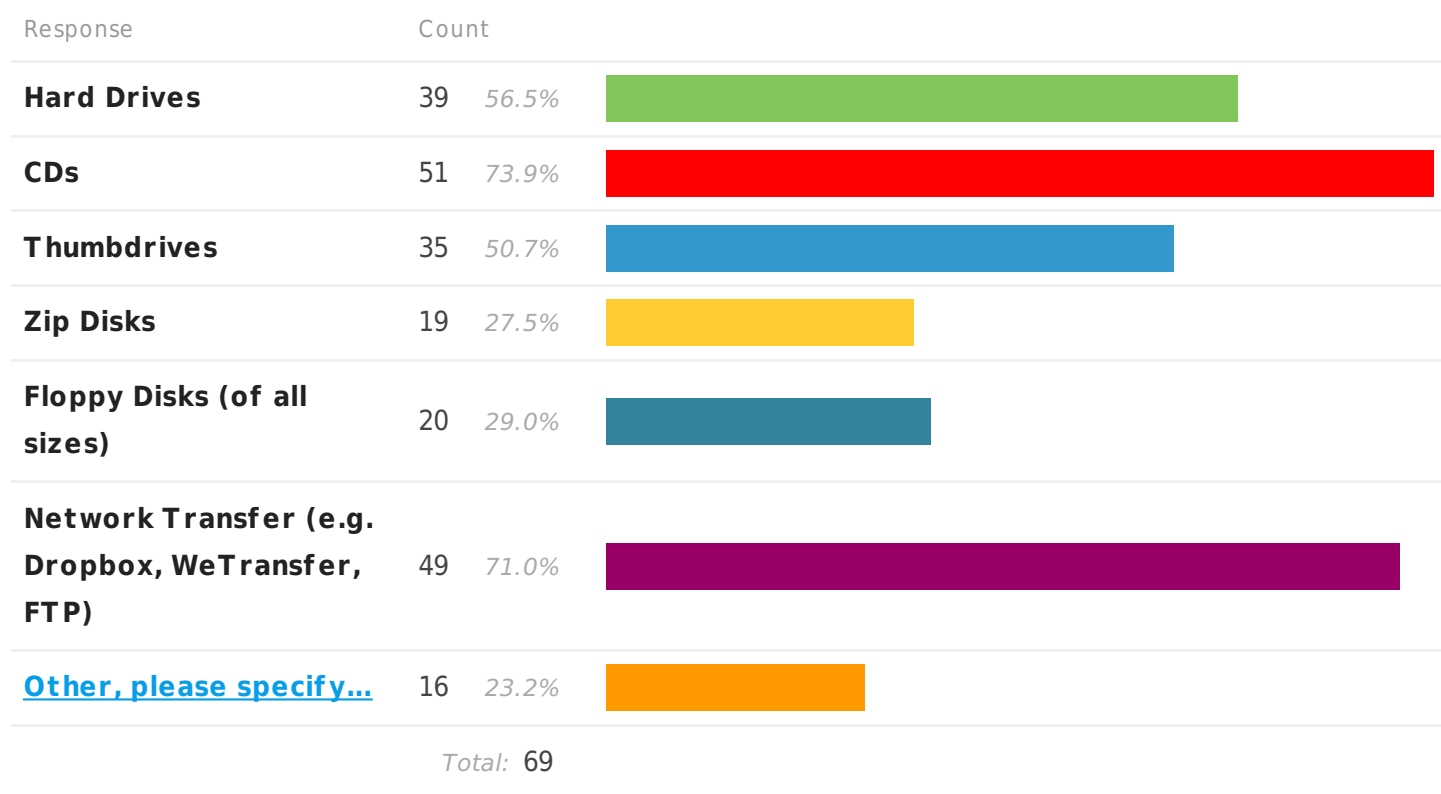
1872 to Present

We have the architects provide pdfs of born-digital design records. Original CAD/BIM files are still live and stored with IT dating back to 1990's.

Early 1900s (Scans) to Present CAD/PDF/MS Office/Etc

Since 1975 and over 1 million drawings

On what media do born-digital files arrive at your repository?



Other systems

files saved on a server

jWe migrated all drawings from Floppy Disks to CD

We're not collecting any yet

other born digital records arrive on a variety of media and we are equipped with legacy equipment and processing procedures.

LTO tape, Jaz disks, SyQuest cartridges, EZ Drives

email

Not at all, too

Server Space

email

Email attachments; website downloads

Internal network transfer.

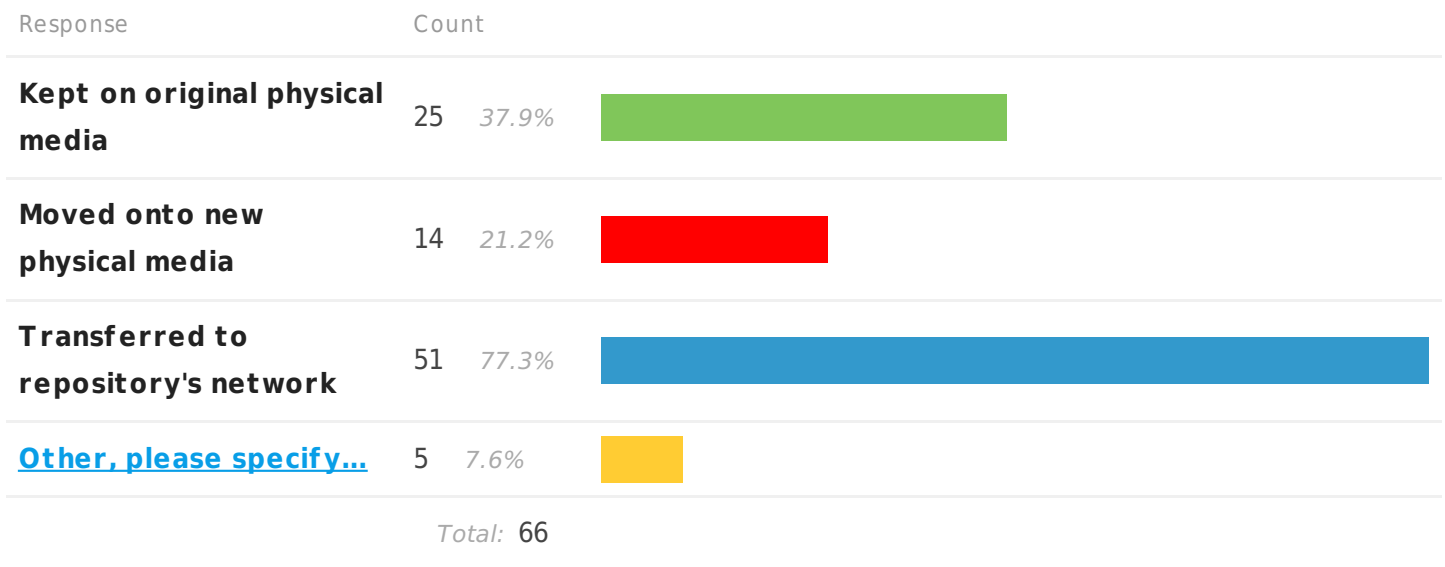
PM software

Blueray

I only keep my own firm's records and an occasional project from elsewhere via network transfer by agreement.

35mm film, 105mm film, Aperature cards, velum

Are digital files being kept or transferred to a new location upon arrival or accessioning?



We're not collecting any yet

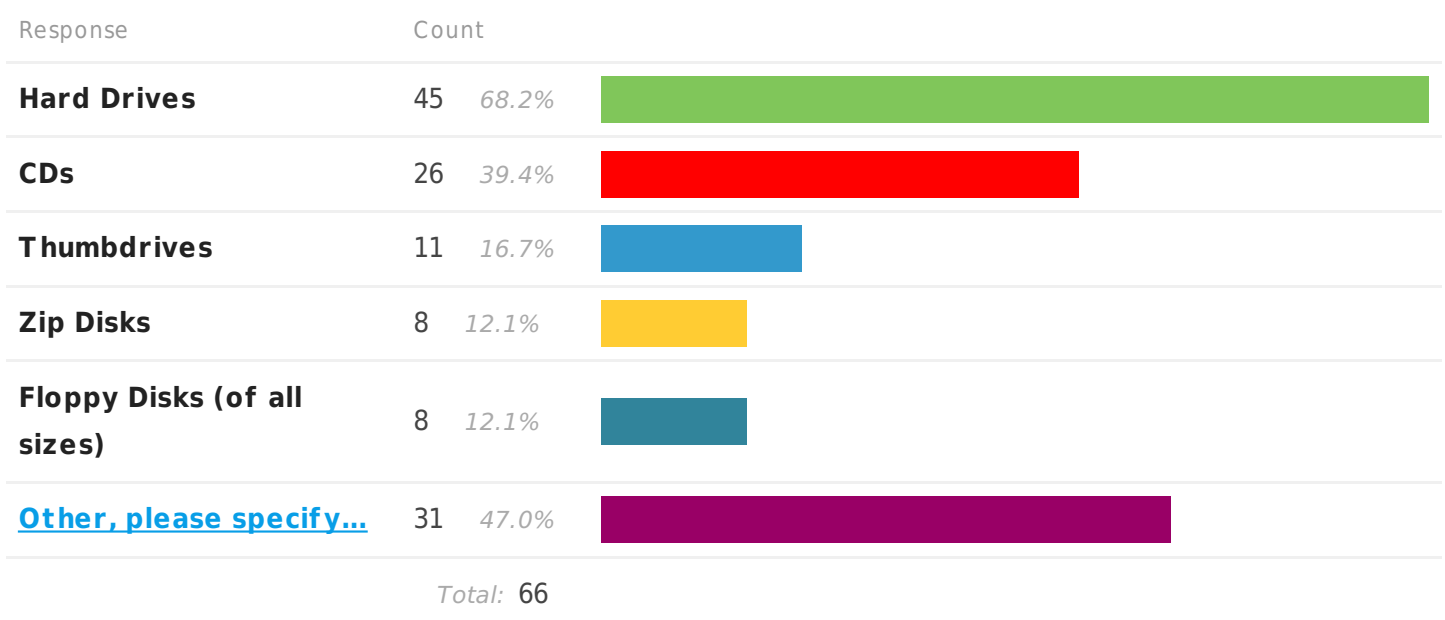
Transfer to workstations for processing

stored on server with limited access

Accessible through the internet

It depends on when/where/how the appraisal occurred.

On what medium are files are stored at your repository?



Preservica

network

server

server, OCLC dark archive

network drives

dedicated server

We're not collecting any yet

Two copies on hard disks in SANs (storage area networks) and one copy on LTO tape stored more than 70km away; on-line copies (on hard disk) are checked for fixity (via checksum) quarterly through Archivematica fixity app

Server

Network drives

Just our servers

NAS and cloud

Network storage

Server Space

DVD

College network

server

Laserfiche software

Hard drive and server

VM servers

Our main storage is the digital repository, but the original formats are still kept.

Database Server Document Management System

Amazon S3 and Glacier

We store on backed up network server and external hard drive

... .. - ... - ...

Network with Meridian Document Management System

Blueray

Network

Cloud

Network

Data center in cloud

network servers

What is the size of your digital file holdings? (GB, TB, PB, etc.)

Response

Count

62 responses

40 TB

I don't know

Still determining

unknown

Many TBs

unknown at present

29 TB

25 TB

10T

1 TB

300 GB

I'm sorry that I do not have a total at this time -- over 8 MB

na

design records in the archives: none.

Approx. 5 TB (not including CDs, DVDs, and other media in the vaults/CCA's legacy collections that have yet to be disk imaged or transferred, which likely amount to several additional TBs)
unknown, right now very difficult to count
6 TB
TB
9TB
10 TB
3 tb
600GB
Up to a PB within full agency spectrum
843 GB
???
226 GB
10 TB and growing
65 GB
400 gb
gb
Don't know
1 TB
TB
2 TB
approximately 100 GB
500+ TB
100GB
24TB
2TB? maybe larger, managed in sections by department

About 1 TB after processing

1TB

We have hundreds of GBs. we maintain Tiff and pdf of construction documents and received CAD and Revit files too. We may be around 500-800GB

Less than 1 TB

1 TB

878 GB

700 GB

2 tb

200 GB

2 TB

1 TB

500GB

10 GB

1.5TB

300tb

8 TB

Large in terms of GB's.

5 TB

PB's

in the TB

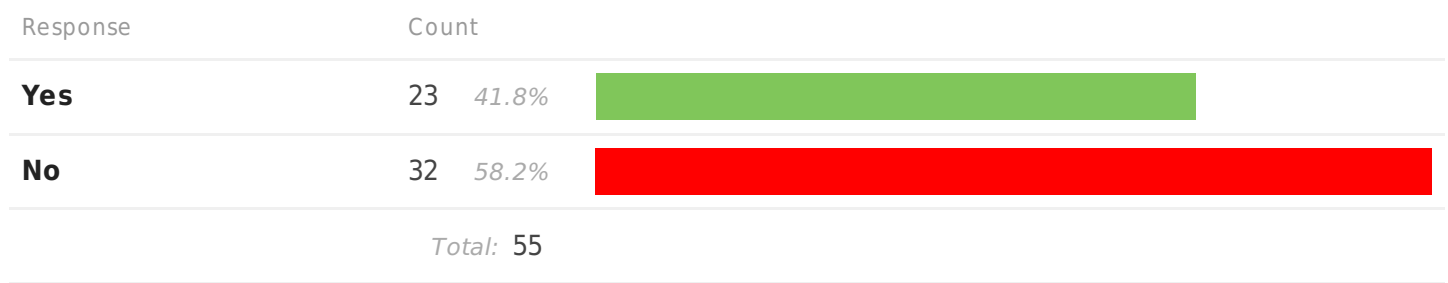
1.7 TB

?

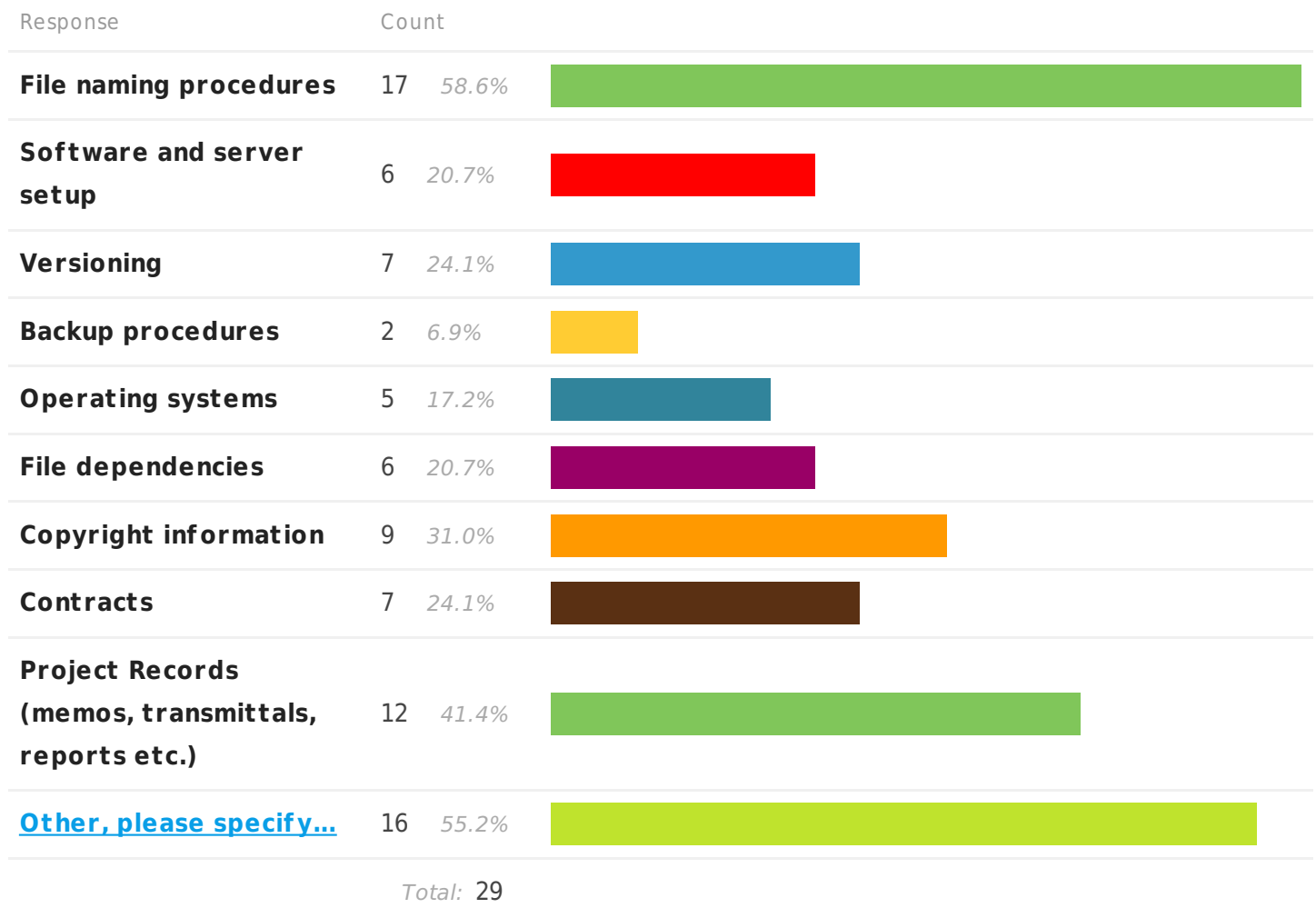
TB

When your institution acquires born-digital design files, do you also require or ask donors to submit

documentation about the context of the records' creation and use?



If yes, what contextual documentation do you require?



We are doing this case by case at the moment

By our contract agreements, we assume use of the drawings and information their in at time of delivery.

Information about the firm/practice, passwords/encryption, records management practices/systems, embedded metadata practices, documentation for any original code/scripts. Note that we do not strictly require any of this information, but have spaces for all of it in our standard donor questionnaire. We have found donors are typically happy to complete the questionnaire and will often provide as much information and documentation as they can remember/find.

Soon, we will be asking about operating systems and several others points

We have only acquired institutional design files, not donations

We're lucky if we get filesystem metadata that we know hasn't been altered.

issued & as-built/record construction drawings, addenda, specifications, O&M manuals

O&M Manuals, Specs, CAD Drawings, Revit, all digital media

We have worked with the architects to develop a check list of information and files that need to be provided to the archive. This information includes file formats.

Document Submittal Checklist (list of what you are sending)

We are developing making this requirements, currently they are just recommendations

Project Info, Discipline/Trade Info, Location Info, Etc.

internal project numbers that link to information about the type of construction project

layer structure

BIM PxP

Does your donor agreement include copyright stipulations for all donated materials?

Response

Count

Yes

16 36.4%



No

28 63.6%



Total: 44

What copyright issues have you experienced so far with your digital design files?

Response	Count
32 responses	
Identifying copyright ownership	
Donor hesitation - once rights are mentioned	
Architects submitting plans with their copyright statement printed on it, although their contract with the university expressly states the plan will be owned by the university. Sorting through architectural copyright law vs. contract law and all the administrators who know nothing about the issue.	
Institutional files/Restricted Files	
Some architects/designers, resist sharing the CAD file and prefer to provide the .PDF version.	
none	
determining what can be uploaded to our digital repository as fair use	
Third-party copyright, donors not wanting their files to be available online. CCA deeds of gift typically keep copyright with the donor/creator while granting CCA an "irrevocable perpetual royalty-free license" for specified purposes relating to preservation, access, use, and display of the material.	
Contractually, we own the files	
No different from physical records; generally the donor does not transfer copyright	
NA	
N/A	
none	
None	
None	
Authors of drawings, questioning subsequent sharing of their files for next renovation	
Private companies posting our info on their websites. Information is already for public viewing, so not a security violation.	
none, as we have full copyrights on all digital design files; however we work with a lot of copyright issues with our digital and analog photography.	

none to date

None so far - but most of these types of material are not accessible yet to researchers.

none

None

None

we generally replace the title block on any drawings which have been changed but some are done outside of our control and are not monitored

Ownership can be contentious at times. Especially when original content is modified.

None to date.

None

none




None, since I am usually the creator of the records. I control any dissemination of data.

Property of owner (US Government)

none

We do not have any since I work for Facilities Management all digital files recieved from contractors are owned byt the instiution.

Do donors provide funding to support the processing, preservation, and access of their digital files?

Response	Count		
No	35	72.9%	
Sometimes	3	6.3%	
<u>Other, please specify...</u>	10	20.8%	
Total: 48			

not a collecting institution

Yes in that these are university records and the university pays for the storage and minimal access. But at this point there is no direct chargeback to the specific projects/units that create the records being managed.

Not applicable. We do not have donated documents, we have documentation created for our use, which we pay for.

NA

the delivery is generally covered through construction costs

Donor is part and parcel with the archive

No donors, archive construction document submittals required by design contract

Clients provide me with a variety of digital information about their jobs; I include whatever is supplied in my archives for future reference.

Taxes

We do not collect from donors in our archive, we serve as a repository for construction documents for facilities.

What language is used in agreements with donors in reference to the permanency and accessibility of their digital files?

Response

Count

26 responses

We reserve the right to do what we want with all donations

Nothing in the contracts with outside architects other than what their deliverables are to use (# of copies & formats). But our retention (and to some extent access) is governed by KY state public records laws which mandate that all university construction records are permanent and open to the public according to open records law.

Case by Case

Not applicable.

Permanency and accessibility of born-digital materials is not specifically addressed in our current gift agreement.

The transfer of records will require a signed Deed of Gift and/or a Donor Agreement that addresses electronic records. Depending on the complexity and organization in which records are received, open and ongoing conversations with staff regarding preservation and arrangement of materials may be necessary. If applicable, removable media will be returned to the donor or handled as agreed upon after the transfer is complete.

No explicit promises are made, but donors grant CCA permission for: storage, "use, reproduction and duplication" (including display in CCA shows, use in CCA publications, and use by qualified researchers, etc.), loan of material to similar institutions, and "generally, without limiting the generality of the foregoing, any purpose not inconsistent with the activities of the CCA from time to time."

Does not apply since we don't receive donor funding

The same language is used for physical materials

We specify the file types they're allowed to use, and we generally require that a specific document be submitted in multiple file formats. We're trying to move to more sustainable formats since we have such long-term storage requirements.

NA

Long-term preservation, variety of public accessibility tiers based on agreement with donor

Upon completion of project, all files received become property of Princeton University.

Our archive requirements stipulate the records are for permanent storage. We don't necessarily specify but all records are accessible.

"Upon completion of project, all digital data is to be removed from the contractor's website." loose translation

n/a

We are working on a draft of this.

into perpetuity, in all modern communication methods

Not Sure

n/a

English

English

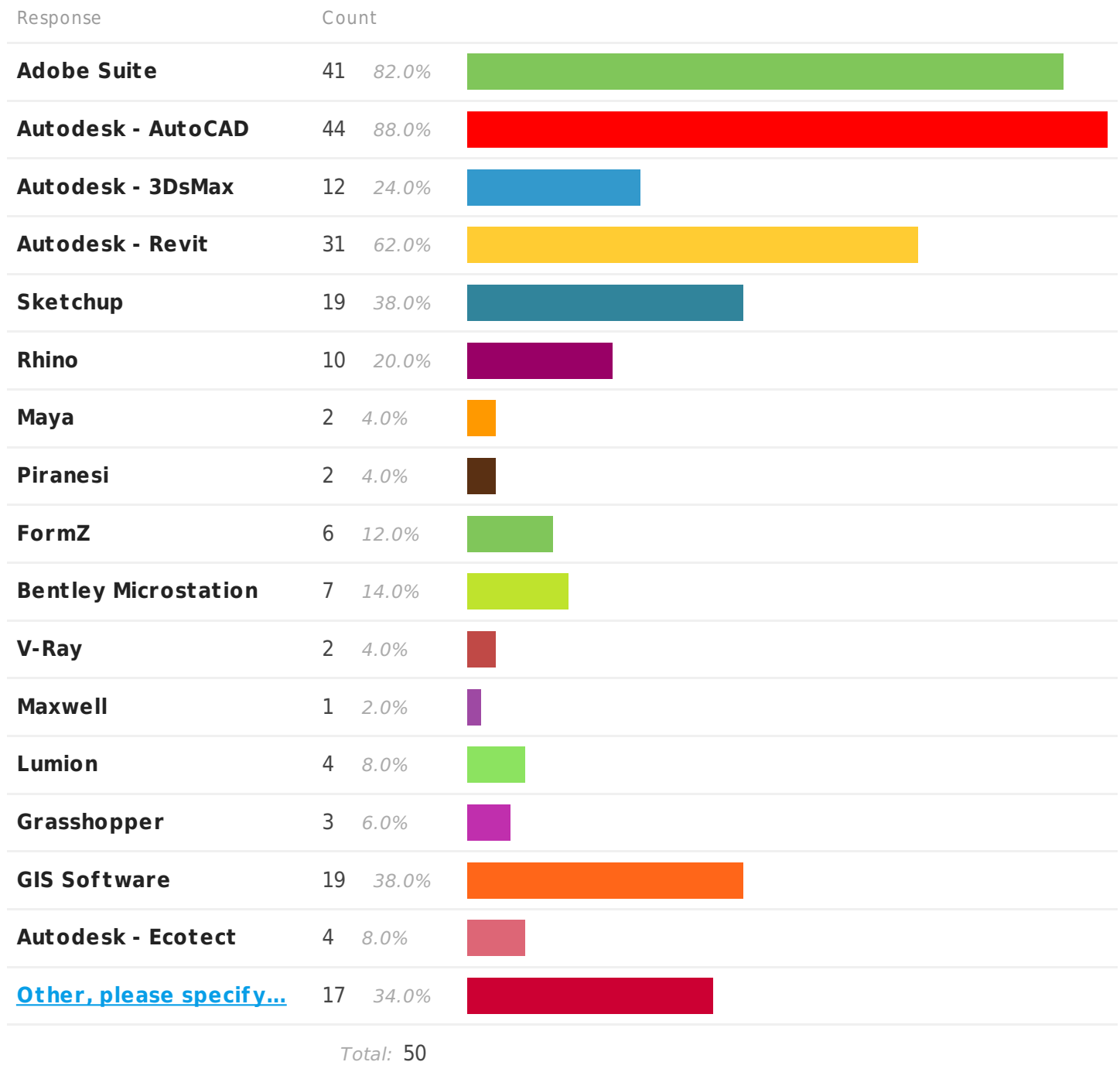
There is no specific language about access/storage of their files; they are supplied with their own copies to manage as they see fit.

English

English

English. (seriously?!) Based on a standard AIA or similar language.

What file formats do you have in your holdings?



Microsoft Office Suite, lots of video formats

TIFF

Alias, CATIA, Softimage, TNO DIANA, STL, IGES, STEP, COLLADA, CubiComp Picturemaker

All we know at the moment

possibly others, unsure of some units

jpg, tif

Autodesk - Civil 3D, Autodesk - Map 3D, Word, Excel, TIF Files

ESRI files

BIM 360

MicroSoft products

tiff, jpg, and pdf

Autodesk Civil 3D, Autodesk Infracore, Autodesk NavisWorks, Adobe PDF, BlueBeam PDF, Video files (MXD, MP4)

Catia, Navisworks
















Graphisoft's ArchiCAD, MS Word, Excel

Archicad

ArchiCAD

PDF, JPG, MS Office

Which born-digital design file formats are the most common in your institution's holdings?

Response	Count		
Adobe Suite	30	60.0%	
Autodesk - AutoCAD	36	72.0%	
Autodesk - 3DsMax	2	4.0%	
Autodesk - Revit	17	34.0%	
Sketchup	5	10.0%	
Rhino	3	6.0%	
Maya	1	2.0%	
FormZ	1	2.0%	
Bentley Microstation	5	10.0%	
V-Ray	1	2.0%	
Maxwell	1	2.0%	
Lumion	1	2.0%	
GIS Software	10	20.0%	
Autodesk - Ecotect	1	2.0%	
<u>Other, please specify...</u>	9	18.0%	
<i>Total: 50</i>			

Word, Excel

MicroSoft Office

jpg

PDF (Adobe Acrobat)


















Graphisoft's ArchiCAD

Archicad

ArchiCAD

PDF, JPG, MS Office

What copies of software do you have in your collections?

Response	Count		
Adobe Suite	34	85.0%	
Autodesk - AutoCAD	33	82.5%	
Autodesk - 3DsMax	9	22.5%	
Autodesk - Revit	24	60.0%	
Sketchup	17	42.5%	
Rhino	6	15.0%	
Maya	1	2.5%	
Piranesi	1	2.5%	
FormZ	3	7.5%	
Bentley Microstation	3	7.5%	
V-Ray	3	7.5%	
Maxwell	2	5.0%	
Lumion	4	10.0%	
Grasshopper	4	10.0%	
GIS Software	17	42.5%	
Autodesk - Ecotect	3	7.5%	
<u>Other, please specify...</u>	11	27.5%	
<i>Total: 40</i>			

None

SolidWorks

ESRI

none

Meridian Document Management System

Catia,

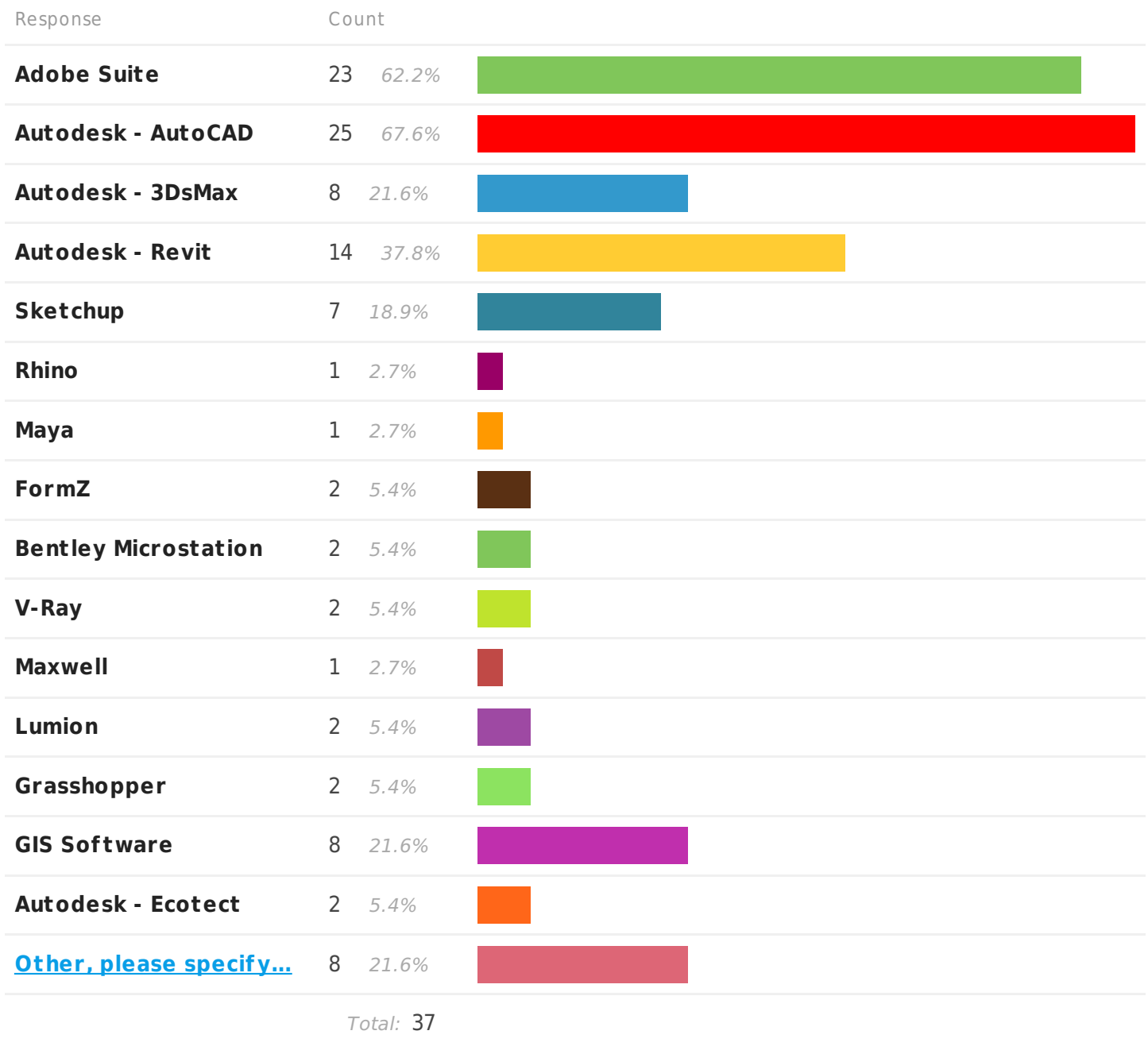
Graphisoft's ArchiCAD-all versions since v8

archicad

ArchiCAD

Navisworks

Which software do you have multiple versions of?



WinXP and older version of IE

none

None

ESRI





















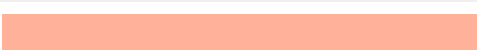
Microsoft

none

archicad

I don't have multiple copies.

What software does your institution make available to staff and/or researchers for viewing born-digital design files?

Response	Count		
Adobe Suite	33	75.0%	
Autodesk - AutoCAD	23	52.3%	
Autodesk - DWG TrueView	17	38.6%	
Autodesk - 3DsMax	6	13.6%	
Autodesk - Revit	19	43.2%	
Autodesk - Navisworks	9	20.5%	
Sketchup	11	25.0%	
Rhino	4	9.1%	
Maya	2	4.5%	
FormZ Pro	1	2.3%	
FormZ Free	3	6.8%	
Bentley Microstation	1	2.3%	
Bentley View	1	2.3%	
V-Ray	1	2.3%	
Maxwell	1	2.3%	
Lumion	4	9.1%	
Grasshopper	2	4.5%	
GIS Software	8	18.2%	
Autodesk - Ecotect	2	4.5%	
Quick View Plus	1	2.3%	
<u>Other, please specify...</u>	19	43.2%	
<i>Total: 44</i>			

not applicable so far

Microsoft Office Suite

Sublime Text (for reading code), Microsoft Office, VectorWorks, Softimage (Autodesk), Alias (Autodesk), FormZ 6.7.3

None

none

True View

BlueCielo Meridian Explorer

BIM 360

I am not aware of what is provided university wide

MicroSoft Office

n/a

Adobe Acrobat

Free Viewer Software

Not applicable.

Bluebeam

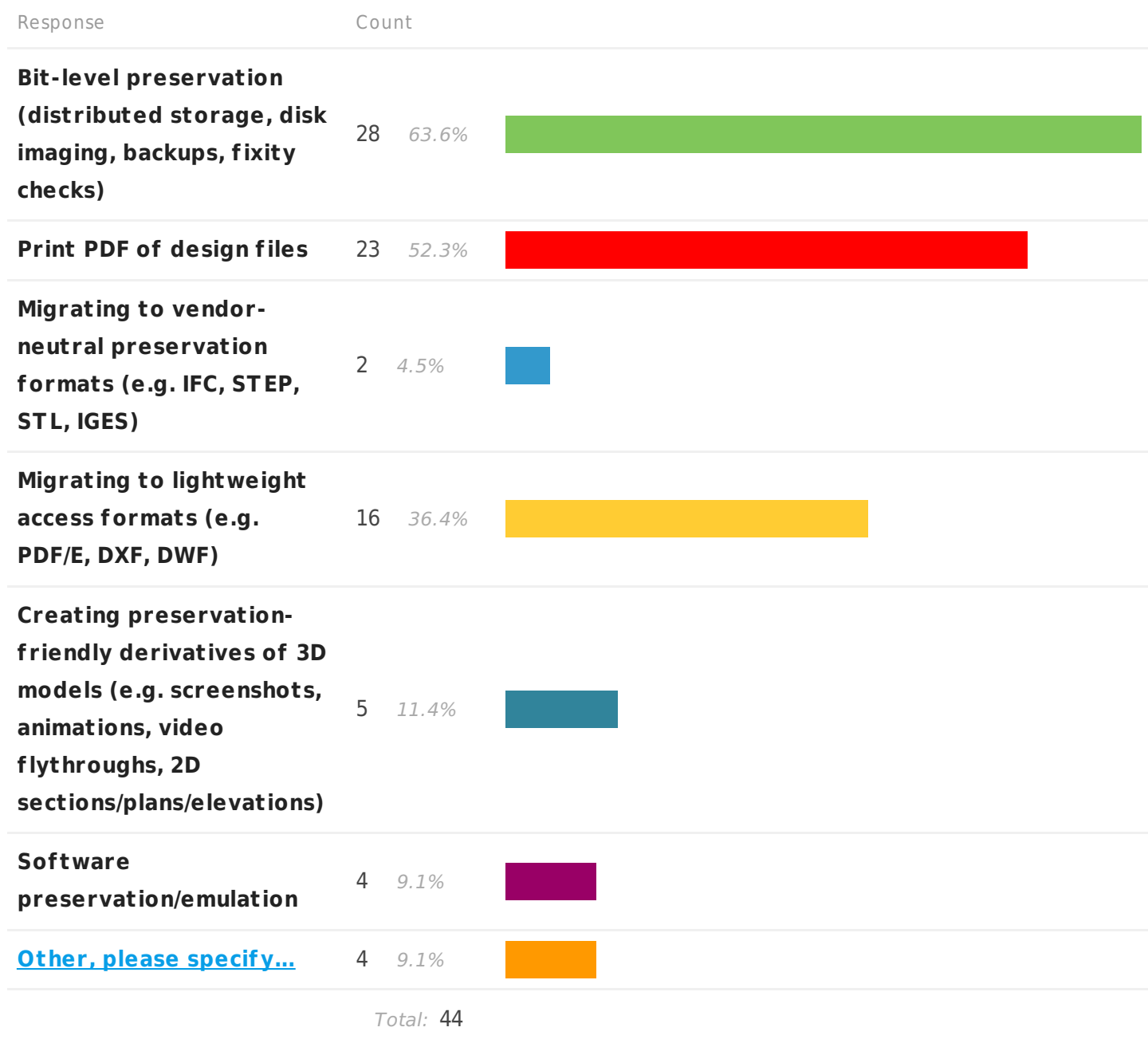
archicad

Not applicable.

Bluebeam, MS Office

Navisworks

What preservation strategies are currently being used?



Accepting digital copy, requiring printed copy

We are currently addressing our preservation plan; no current activities.

we receive hard copy and are not responsible for printing files

Migrating files to a hard drive or cloud server

What preservation strategies would you like to implement in the new few years?

Response	Count
	23 responses
Improved file saving practices (including naming conventions) to ensure smoother interoperability between software - will ease stress on other preservation efforts.	
Improve documentation of software used on a single file.	
getting records out of their original formats and obsolete enterprise databases and converting to more stable and easily accessible formats and files structures; bit-level preservation and better security of the server holding these digital records	
Final Drawing set born digital archives. As of now, all drawing sets are stored within the project folder.	
I don't think I could keep up with more digital preservation strategies.	
Migrating to vendor-neutral preservation formats, and software/hardware emulation	
While we have an Electronic Records Task Force that has addressed the accession of born digital material, we have not yet identified or addressed the issues surrounding born digital design records.	
Formally accessioning legacy software into collection, accessing files via legacy software in virtual machines/emulators, more robust (automated) format migration for design formats when possible.	
Recognition that these types of files require a different management strategy	
This will be partially dependent on what our donors are willing to do: will they save PDF files from AutoCAD, for instance. Will they save files to a vendor-neutral format? These are all issues to address in the future.	
Bit-level preservation; richer metadata for records retained permanently; migration to formats that are shown to last longer over time (pdf/a, tiff, etc.); moving away from paper as preservation "backup"	
software preservation, preservation friendly derivatives of 3D models, vendor neutral formats	
Migration to PDF/E	
we are currently entering data into an electronic document management system	
Maintaining "Latest & Greatest" in all software and digitizing equipment,	
I would love to know more about how to preserve CAD/BIM files and keep the interactivity.	
Looking at cloud storage for easier end user accessibility.	
Bit Level preservation, Software emulation, conversion of existing media to server based.	

Off site backup

To make a plan

Combination of local hard drives with a complete digital duplicate in the cloud.

Backwards compatibility of all visual or graphical data to render the image intelligently. I am tired after 30 yrs of practice of proprietary programs becoming obsolete.

Streamlined file storage that can be easily accessed to include project emails.

Bit-level preservation and software emulation

What are the obstacles preventing your institution from doing so?

Response

Count

27 responses

Getting buy in from records creators.

Cost

little administrative support or understanding of the issues and costs/benefits

Working at an active architectural firm, there are server space limitations and also issues with IT and project teams in terms of collaborating.

Acquisition overload. Each acquisition requires a review of all drawings for external references and standard naming conventions.

Only a couple of knowledgeable staff members devoted to digital preservation for entire library system

None have been donated and staff changes

Difficulty in finding and acquiring legacy software, legal risks of software preservation/emulation, relative lack (though this is improving) of software tools to be implemented, limited availability of in-house tech support/programmers, other (more immediate) concerns/priorities for institution

Lack funding to manage digital collection.

We haven't gotten a lot of these types of files as of yet from donors, so, we do expect this in the future. We need more experience from donors who are working on these types of files.

lack of personnel time and training; serious lack of money; lack of investment by higher-level management,

though mid-level management is interested and concerned.

different departments/specialisms wanting to do their own thing and not understanding the requirement for long term preservation.

Need document management system for public access.

Staffing and Knowledge

Time

we are currently under staffed to move forward at a fast rate

Funding -- red tape

time and IT staff.

Probably our own unfamiliarity with these types of records is impeding our work on them. Currently the media is forensically imaged and their existence described in the finding aid, but we're kind of stopped there.

Space, software, staff

A lack of understanding as to the importance of preserving our digital legacy.

Cost

Don't know enough

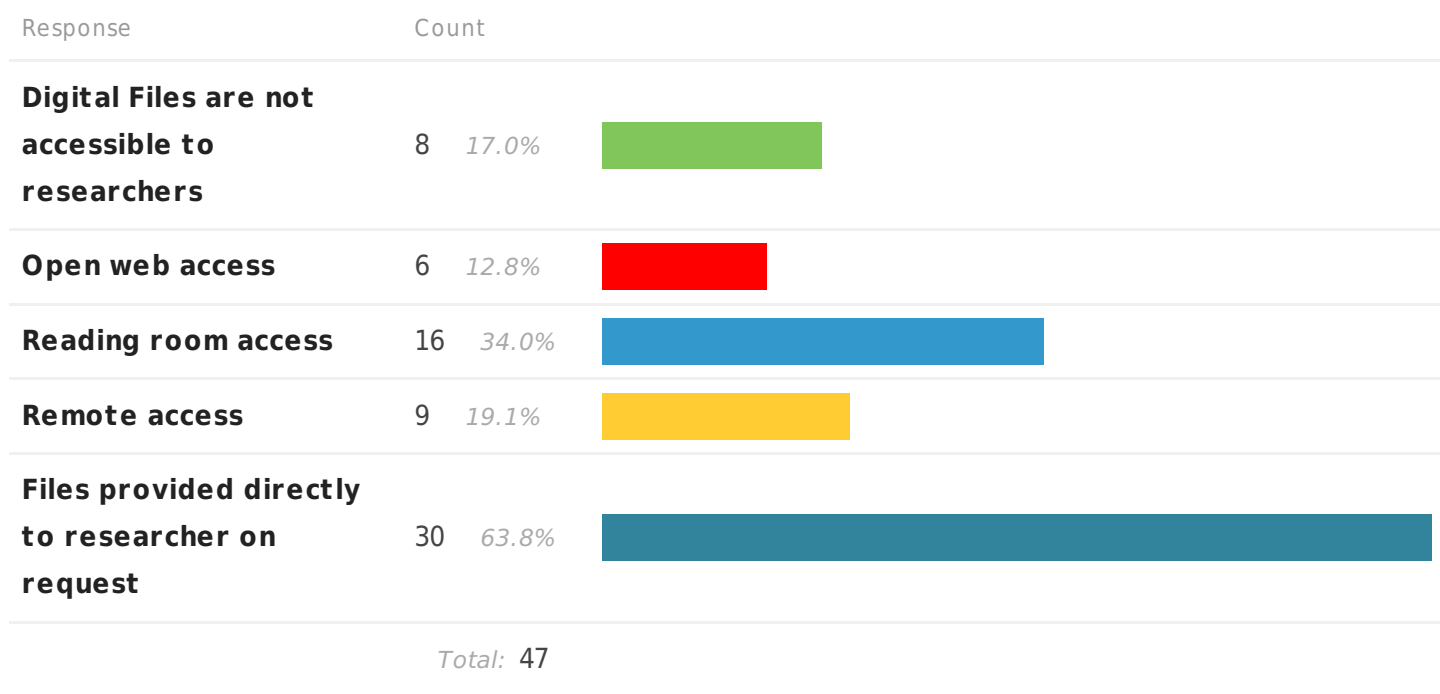
Daily work load. (Really no excuse.)

Money and the relative intelligence of the typical programmer to do anything creative short of hacking. Hackers are actually pretty intelligent at doing work arounds. But one has to pay them to convert a file to a simple PDF. If there was backwards or universal compatibility in formats, then storage and retrieval plus survival of virtual data about a building would be easier to manage.

Understanding of available options and the time needed to sort through project files and folders.

Processing backlog and allocating staff time

In what capacity are the digital files available to researchers at your institution?



If digital files are available to researchers, what type of reference/usage questions have you been asked with these digital files?

Response	Count
	18 responses

Often requesting CAD files for offsite use.

users needs are primarily regarding building maintenance (please send me pdf), future construction/renovations (please send me CAD), or legal issues (ediscovery). occasionally students or faculty want copies for research & instruction (pdf/CAD)

Print copies

Could you please email them to me.

I do not regularly work with researchers in the reading room, but as far as I am aware access to born-digital records has been limited at Yale largely to textual files, like pdf and email.

We have had very limited use so far, as only a small amount of material is available at this point. Some of the topics that researchers have expressed an interest in include understanding the design process of a firm and how digital renderings compare to analog presentation materials.

Reproduction requests

none so far

Reason for request, photocopy of state issued ID,

Are files are mainly used by UT staff and contractors. We occasionally get request from professors on campus to allow student access. When we get those requests we limit access to only the requested buildings.

Is this the latest version, or do you have the As-Built's associated with a particular discipline for this project or building?

normally files are related to class projects and we have very few requests

Very few questions -- just how to find the records.

I need XYZ drawing(s).

Researchers and student often ask if they can re-publish floor plans to their web site or in other fashions. We do not allow re-publishing of any of our materials.

The CAD files are only for one division so far which does not have reading room access.

What project is this from?

Qualify the above: I would charge for research or use-of-file for any one taking previous information and using for a new venture or project. All Information has value of some worth.

If digital files are not currently accessible to researchers, is there a timetable for when you be making them available?

Response

Count

14 responses

if something is not digital, we will scan on demand without hesitation.

No. On occasion PDF files and JPEGs are provided to researchers.

It's case by case. If I'm going to scan in house, it will take longer than if I send them out to a reprographics company. I decided based on the number of drawings; quality; are they reversed; white on blue; linen.

N/A

We maintain information related to campus infrastructure and buildings, so we only make info available through FOIA requests. At that point, we provide them with the files, and it's their responsibility to access the information within, as far as I have been told (not been a part of FOIA request)

N/A

If the requested information isn't on our end user platform we will search for it and send it to them through a cloud based account.

2 to 3 years

n/a

files are always available unless they were from a data tape that failed reload.

Yes working on that right now so any day!

Based only on the statute of repose that a jurisdiction or municipality would require.

At our institution the records are proprietary so they will likely not ever be freely accessible. Any researcher or student may request almost anything from our collection as long as they present a project manager or professor etc. they are working with.

No

Please provide any additional thoughts or comments here.

14 responses

Need to expand this conversation to include the other design professions (landscape architects and planners) that are most often working with architects.

I'd be interested to know how folks are managing BIM records and how they are archiving the various COBIE level of information - if these are being extracted or maintained w/i BIM. Thanks for doing this survey

(1) I think the National CAD Standard is a move in a positive direction. Fortunately, A/Es are getting better about embracing the naming conventions. (2) I wonder, too, about the impact of project management software, such as Bluebeam. It's great for sharing drawings, but how will be archive the project if we want to? Architectural records archivists are facing exciting challenges with products like Revit models and project management programs.

We appreciate that the next step for is to prepare for the first donation of born digital design records. Our Electronic Records Task Force has developed a Guide for Donors of Electronic Records and for the Curators which gives us a good start, but there are certainly unique issues design records that I haven't investigated.

On access: At this point, files are available to researchers on a CAD workstation in CCA's reading room but only on request. This is a temporary solution. Eventually (tentatively in 1-2 years) we aim to have all born-digital material viewable/downloadable in the reading room from our finding aids via AtoM.

On software: No software has yet been formally accessioned into CCA's collections, but we are actively gathering software and licenses for our four CAD workstations that are used by staff and researchers alike when working with digital design material. The goal will be eventually to expand this collection of software (including older versions of software that will need to be run in VMs/emulators) and potentially accession it into the CCA collection.

Our biggest concern is long-term preservation and finding the staff to manage it.

As a federal agency, we do not have donors - our donors are our staff. We currently are working on a strategy to develop a digital repository for all born-digital records agency-wide, not just CAD/BIM drawings however we need to be thinking about the ingest/normalization of these issues in the long-term.

As you expand use of newly presented archive, you rather quickly gauge the needs of the customer base you are reaching, their feedback is essential in prioritizing the collection.

The system we are using, Laserfiche, is one of the leading "User Friendly" DMS systems.

If it is your intension to share the data with various entities, the versatility and security controls are excellent.

sorry to not be much help.

We are not a research institution, but an architectural firm dating to 1927. Our paper archive is intact to that date. Our digital archive is less so because there was not an understanding of the value of retaining digital archives until the second and third generation of redevelopment of projects. The digital files contain more data than hand drawn documents ever could. The complexity of design is ever increasing and with it the size and importance of good digital records. The value of recalling past digital work is increasing with the adoption of BIM technology.

I like to keep ALL of the data in a 'live' format--that is a hard drive with direct access to any and all files that are available. This eliminates the need for legacy hardware, sketchy storage media and additional effort to access older data.

Most architectural and engineering firms through out the world are sitting on enormous amounts of data that are easily retrievable and almost instantly useable for as-built study or investigation. This is especially true of our nation's infrastructure. Firms charge as much to analyze data as they do to design because the firms attempt to recreate from scratch the information about an object, building, or buildings instead of organizing a set of data-docs from a file.

As an investigator in New Orleans after Hurricane Katrina in 2005, I could get permission to obtain a computer file, download and study the data. Print outs could be made quickly to do the necessary damage assessments and quantity surveys for insurance purposes, repair and/or reconstruction. I always ask if there are drawings or computer files on any given building.

This data is valuable and almost as valuable as the actual building itself. We forget that the City of New York kept their archives in the structures beneath the WTC prior to 2001. A lot of historical 'data' was lost.

Thanks for the opportunity to participate in this survey.

With various software platforms and the yearly upgrades it is hard to keep up with the different version and ensure older files will still be able to be accessed with newer versions. To keep a copy of a software version is getting out of control and takes up space as well with new version coming out every year. Also, there is a concern about using cloud storage and its security as a back up catalog that is not on site in the event of a major incident (fire, earthquake, etc).
