

Montana State Library  
2019 Request for Information (RFI) for Resource Sharing Software

Compiled responses

Respondents:

OCLC – responded to all components (cataloging, interlibrary loan, content management system)

Notch8 (Hyrax Hyku) – responded to content management system

Quartex – responded to content management system

Recollect – responded to content management system

### **3.0 RFI RESPONSE INSTRUCTIONS**

The State is asking all interested parties to submit a response containing the following information:

- ✓ Your interest in providing the services/supplies.

The libraries in the State of Montana collectively serve as an example of why OCLC exists. With its wide variety of geographically dispersed institutions of all sizes and types, staffed by librarians who understand the critical need for efficient cooperation, and who are motivated to continually improve services for their patrons, you essentially are a “mini OCLC cooperative.”

OCLC is deeply invested in continuing to help Montana libraries succeed! By making information more accessible and more useful, OCLC enables Montana libraries to achieve their mission of helping organizations, communities, and Montanans thrive. OCLC provides shared technology services, original research, and community programs that help Montana libraries meet the ever-evolving needs of their users.

For example, with over 2,500 institutions using CONTENTdm and more than 60 million digital objects in OCLC data centers, CONTENTdm is the leader in digital asset management. The Montana Memory Project has already chosen to upgrade to the new CONTENTdm. By making this upgrade, the Montana Memory Project is already on the most advanced, customizable digital collections website. This open framework provides institutions with the flexibility. CONTENTdm allows you the ability to adapt simple configuration changes to customize the look and feel, or more complex solutions like the CONTENTdm API or integration with IIIF image and presentation API.

OCLC provides this open framework in a completely hosted solution so the library staff can spend time on more important matters like building, preserving, and showcasing your unique collections such as the Yellowstone photograph collection or local yearbooks. OCLC is interested in supporting the Montana Memory Project; allow us to host the servers, manage updates, operating systems, networks, storage, and disaster recovery. OCLC is committed the future of CONTENTdm and will continue to release enhancements that improve the end-user experience and elevate the Montana Memory Project collections for discoverability.

By continuing to use OCLC Cataloging, WorldShare ILL, and CONTENTdm services, Montana libraries can move seamlessly into the future without unnecessarily expending the time, money, and effort required to move to other systems. Furthermore, our collaborative relationship on projects such as the Montana Memory Project and Montana’s statewide resource sharing initiative illustrate the strong partnership that exists between our organizations—a partnership that enables the State to help OCLC improve our services and products for the benefit of Montanans and library users around the world.

*Your success is our reward.*

## Notch8

Notch8 offers information below as applicable to Hyrax and/or Hyku as Samvera-based solutions for digital content management and preservation. These are not off-the-shelf software products; they are open-source softwares that typically require some extent of development and customization per use case. Many of the questions asked do not apply, so where this RFI response is incomplete, it is for lack of applicable information.

- ✓ Brief description of experience providing similar services/supplies.

For 52 years, OCLC has been on the forefront of using technology to extend library cooperation. At OCLC's inception, Ohio libraries proposed a major paradigm shift in library operations. The goal was to launch a computer platform and network to collaboratively build shared services and resources that lower costs while simultaneously increasing efficiency in library management. This first cooperative cataloging service would be an unparalleled effort guided by libraries to share data and workflows that they had never shared before.

Cooperative advances have expanded to help libraries better manage cataloging processes, resource sharing, and digital materials. OCLC solutions for groups and consortia increase opportunities for groups to support their members with research, training, and services that streamline the technical challenges of collaboration.

## Cataloging

OCLC began with a simple idea of helping libraries catalog more efficiently, by setting up systems for them to cooperate and share their efforts. The clearest validation of this vision is the continued growth of WorldCat, the world's most comprehensive database of information about library collections. WorldCat is the manifestation of the creativity and innovation of the staff of OCLC and thousands of librarians. Unique in scale and unparalleled in data quality, WorldCat makes library collections findable and accessible around the world.

OCLC's team of expert catalogers and data quality specialists continually enrich WorldCat records with new and corrected information to ensure that WorldCat contains the highest quality records possible. Library staff members also enhance records through their participation in shared cataloging, via the OCLC Cataloging and Metadata Subscription, making WorldCat records the industry standard for quality.

By enabling libraries to share high-quality library metadata and bibliographic records with each other, WorldCat has helped librarians dramatically reduce the time they spend on original cataloging.

The WorldCat shared cataloging service is among the largest and busiest in the world, currently providing access to more than 461 million items. Our Metadata Quality team members are dedicated to improving the WorldCat bibliographic catalog, knowledge base and registry. These cataloging experts collectively have more than 265 years of experience with OCLC. They create and enhance WorldCat records, both by hand and through automated systems.

Since 1971, the holdings in WorldCat have always been set through the bibliographic database, either online or via batchload/data sync. When changes are made to WorldCat records that a library has set their holdings on, they can receive MARC record updates automatically at no additional charge, thus improving the discoverability of their collections.

We also look to maximize relationships with other vendors, not limit them. For example, OCLC is content-neutral, as we are not a publisher, nor do we own content. As a result, we are one of the only organizations that can ensure search results are matched to search terms without preference.

We also are stewards of our members' contributions. As a nonprofit organization, our goal is not to make money for investors or owners. We instead work to make a difference for our members, as we work to make knowledge more accessible to all.

## WorldShare ILL

In 1979, OCLC introduced our first Interlibrary Loan (ILL) system, helping OCLC members share resources more efficiently. WorldShare Interlibrary Loan (ILL) automates your interlibrary borrowing and lending processes through the largest resource sharing network in the world to save your staff time and to ensure timely delivery of items to the

people who need them. WorldShare ILL connects you to thousands of libraries whose entire collections can be viewed at a glance in WorldCat. Together, these libraries have created a shared, global library collection for all library users.

## **CONTENTdm**

Since 2002, OCLC has provided libraries, cultural heritage organizations, museums, and other non-profit organizations with an intuitive method for organizing and making more visible their digital collections through CONTENTdm.

## **WorldCat Discovery**

In 1991, OCLC introduced FirstSearch as the first end-user interface for library reference services. The development of WorldCat Discovery began in 2012 and the first libraries went live with it in April 2014.

## **Quartex**

Adam Matthew Digital is pleased to present the following proposal to the State of Montana, Montana State Library based on the technical requirements outlined in the Request for Information for a digital asset management and discovery system. Adam Matthew Digital understands the requirements of the RFI and accepts the terms and conditions under which the RFI was issued.

As an award-winning publisher of primary source content, Adam Matthew Digital has nearly 30 years' experience curating and showcasing digitized archival collections. This experience has informed development of the technology underlying all the collections we release, which ensures that our customers can effectively discover, access and explore the content we publish. Adam Matthew Digital now makes this technology available, as Quartex, to libraries, archives and other heritage institutions, to facilitate digital open access publishing. Since releasing our platform to a larger group of repositories in early 2018, we have grown to support a global client base of nearly ten clients, the majority of which are based in the US, and we are pleased to see that number growing.

Quartex is a hosted solution developed by a dedicated and skilled team of engineers. It is designed to support a broad range of repositories' needs, including academic libraries, public libraries, corporate libraries, historical societies and museums. It benefits from a continual program of investment and development, as new functionality is added to support the requirements of both customers and the Adam Matthew Digital publishing schedule. Adam Matthew Digital's responses to Montana State Library's technical requirements speak to Quartex's flexibility, current functionality and ability to offer the Montana State Library a solution that will allow it to showcase its digital collections in new and unique ways, as well as our commitment to further enhancement of the product.

Pricing for Quartex is presented as a five-year agreement and reflects an annual subscription fee based on a range of potential digital footprints from 1TB to 5TB that Montana State Library may wish to purchase. Larger footprint options are also available. Pricing for consortia members who contribute digital content to the Montana State Library digital platform to purchase their own URL are also included. For customer service support, Adam Matthew Digital proposes a train-the-trainer approach with the Quartex Product Specialist training a designated team at the Montana State Library to support its consortia members. If a different customer service support approach is preferred, new pricing should be requested. Pricing also includes one-time fees for customer service support related to the Montana State Library migration, and credits for Handwritten Text Recognition (HTR), Optical Character Recognition (OCR) and Audio/Visual full text search services, which can be run in platform at Montana State Library's discretion. Adam Matthew Digital anticipates that Montana State Library staff should be able to migrate existing digital collections to the Quartex platform in no more than one year. Current Quartex customers with a digital footprint similar in size to that proposed for Montana State Library have been able to complete Quartex builds in roughly six to eight months.

- ✓ From your experience, has the State identified all the major components necessary to complete this project? If not, please provide information on other necessary components.

As more libraries across the United States and around the world embark on projects to protect the scholarly record, the libraries of Montana may wish to lead a shared print project. Shared print projects address the growing need for libraries to ensure monographs of value are not discarded through weeding and deselection efforts. As library space changes to accommodate the needs of their patrons, libraries may choose to weed materials and reduce their print collections. To protect unique and valuable resources it is important to put long term retention commitments on those materials. OCLC's GreenGlass application allows a group of libraries to understand their shared collection with respect to overlap,

subject dispersion, and usage. GreenGlass allows you to experiment with various retention scenarios and estimate the impact on each participating library, and then commit to specific retention agreements with confidence.

- ✓ Please provide a list of potential problems/risks that the State may encounter during this project. Please provide any ideas or suggestions about how such problems/risks should be addressed in a solicitation.

The State risks spending significant budget, time, and effort in moving to other services that ultimately cannot provide the value provided by OCLC.

Specific to CONTENTdm, if the State remains on the software, there are no potential problems or risks. If the State decides to move to an open source solution for their digital collections, there are many potential problems. With an open source solution, the library staff are responsible for upgrades, development, and costly servers. The goal of the Montana Memory Project is to “encourage cultural institutions to digitize historic and contemporary resources reflecting Montana’s rich cultural heritage and make them freely available for lifelong learning.”

The goal of open source is to provide source code and enhance web development and programming skills. The goals and priorities of OCLC and the Montana Memory Project are aligned. There is serious risk diverting to a software that requires intense web development skills and maintenance of servers, disaster recovery, managing operating systems, planning for upgrades. There is also a risk in unknown costs related to support, upgrades, customizations and outsourcing with open source software.

- ✓ Your best estimated price range to provide the services/supplies as stated herein, lowest estimate to highest estimate.
- ✓ Your best estimated time frame for completing the project.

Library staff would spend no time at all to complete this project using OCLC services, as staff currently use Cataloging, WorldShare ILL, and CONTENTdm. Staff would not need to engage in any implementation process or training sessions to continue effectively utilizing these services.

## **Questions**

Responses should address the following questions [all products unless otherwise specified]:

PART ONE: ALL PRODUCTS

### **Statistical Reporting Requirements**

1. Please describe how consortium administrators and institution-level library staff can access and generate on-demand statistical reports, including:

Recollect utilizes internal reporting and Google Analytics to provide statistical reporting.

- Types of reports available (usage, item count, item format, web analytics, end-user accounts, etc)

### **Cataloging**

#### **Usage**

• **Connexion** - The online Connexion usage statistics contain information about a library's cataloging statistics. Monthly reports are included for individual and group (consortium) accounts. Each month, OCLC adds another month to the statistics service. A minimum of 36 months of historical data is available.

OCLC Usage Statistics can be accessed from the Cataloging login screen or by going directly to the OCLC Usage Statistics page. Cataloging Usage reports give totals for searches and record actions performed in WorldCat or the Authority File, Each item in the Usage Report is hyperlinked to data for that item or category.

- **Record Manager** – The online Record Manager activity reports are viewable in the Analytics tab under the “Metadata” section. They contain information about the number of transactions for bibliographic records, authority records, and Local Holdings Records, as well as holdings set and/or deleted.

**Item-Related Reports** - WorldShare Collection Manager provide reports specifying changes to collections represented in the WorldCat knowledge base. These reports include:

- **Monthly Record Summary** – This report includes a summary of activity with record count per provider, per collection, for new, updates and deletes as well as the total number of records delivered. Record delivery is counted by combination of OCLC number, symbol, and date. This monthly report is available for 5 years.

- **Collection Manager Report** - This report is separated into new, updated, deleted, and holdings. Reports will be available for users to view online for 90 days. It includes reporting date, institution name, and institution symbol, with columns provided for: Provider, Collection, Title, ISBN/ISSN, OCLC Number, File Name, Action and Multiple Occurrence.

## WorldShare ILL

**Usage** - WorldShare Interlibrary Loan usage reports are available via the OCLC Usage Statistics interface, including:

- **ILL Fee Management (IFM) Reports** – These are monthly detailed reports that itemize library-to-library borrowing debits and library-to-library lending credits listed on a library’s OCLC bill. There is a Summary view featuring totals by institution with the institution symbols linked. Clicking on the institution symbol shows the transaction details for that particular institution. There is also a Detail report showing all transaction detail for each institution.

- **Resource Sharing Borrower Reasons for No Report and Resource Sharing Lender Reasons for No Report** – These monthly reports for both Borrower and Lender activity help Lenders evaluate their fill rate and borrowers to refine their Custom Holdings Groups. The Reasons for No report shows details for requests that were refused, including ILL Record Number, Title, OCLC Number, the lender's name and OCLC symbol the reported reason for not filling the request, and the date the request was refused and imprint date of the material. Your

libraries can use this data to determine whether the age of the requested material falls into any pattern that may allow for further refinement of deflection rules. The Resource Sharing Lender Reasons for No Report shows similar information but does not include the lending institution's position in the lender string.

- **Strategic Union List Report** - The Strategic Union List Report gives libraries a jump start on entering union list holdings data by providing a list of serial titles requested from their library via interlibrary loan.

- **Borrower Resource Sharing Stats Report and Lender Resource Sharing Stats Report** - These reports provide a detailed look at all the requests that pass through a library's system in a given month and are organized by transaction. A record appears in this report for any month during which action was taken on the request, so a request may appear in multiple months. Because of the depth of this report, only one month of statistics can be displayed at a time.

- **Borrower Activity Overview Report and Lender Activity Overview Report** - These reports show the number of requests initiated by a library in a specified month, the number of requests cancelled in that month, and the number of requests reported as filled for that month. For the Borrower Activity Overview Report, unfilled requests may show up in future months as being filled, so they would appear in two months' Activity Overview reports.

- **Borrower Transaction-Level Detail Report and Lender Transaction-Level Detail Report** - These reports provide details of requests to or from specific institutions within a given month. The Requests to Lender/Borrower total represents each time a request was passed along to an institution. In the Borrower Transaction Level Detail Report, because one request can be handled multiple times, the number of requests is higher than the number represented in the Borrower Activity Overview Report.

- **eSerials Request by Journal Title Report** - This report displays the OCLC number, Journal Title, ISSN (where available), and the total number of requests for electronic journals received and filled for each electronic journal requested.

- **Serials Request Overview Report** - This report shows your library the total number of requests for serials received, and then breaks this total down into print and electronic journals. It also shows the number of requests deflected, the number of requests filled by journal type, and the percentage of requests received and filled for electronic journals.

- **Copyright Compliance Payment Report** - This report helps a library track Copyright Compliance payments by using the ILL data.
- **Article Exchange Reports (For libraries that use Article Exchange)** – These daily and monthly reports include data about the borrowing library, the file name, when it was uploaded, when it was first viewed and turnaround time.

## CONTENTdm

**Usage** – Built-in reports show all item views by collection for each month. Item-view reports are updated nightly, and aggregate report shows all item views across the entire repository for the current and previous months. CONTENTdm also supports direct integration with Google Analytics for finer-grained usage statistics. All Google Analytics features are supported, including Event Tracking to evaluate user behaviors, like Download, Print, and search requests. CONTENTdm’s extensive customization features also provide a way to support other usage tracking services. For example, a current user has modified their CONTENTdm instance to send usage analytics to an instance of Matomo that they maintain on campus.

**Item-Related Reports** – For every collection, a detailed report of items by type/format (file extension) is available at any time. These reports are updated dynamically when viewed to provide a current snapshot of the contents of the collections. A top-level report shows total items across the entire repository, and disk usage in aggregate and per collection. In addition, a detailed report shows items by type/format (file extension) across the repository (broken down by collection).

## WorldCat Discovery

With a Universal Google Analytics account, you can access the following reports about Discovery:

- Number of page views and users
- New users
- Method of access
  - Browser (Google Chrome, Internet Explorer 10, etc.)
  - Network of service provider
  - Type of device (e.g., desktop, tablet, mobile)
  - Specific device (e.g., iPad, iPhone, Blackberry, etc.)
- Pages visited
- Page flow and landing pages
- Top events (e.g., “user clicked Access Online,” “user clicked Place Hold,” etc.)
- Search Term used

Google Analytics also includes data on simultaneous users of WorldCat Discovery.

Standard Recollect reporting includes:

Site metrics –numbers of items, metadata and so on.

Page views / month

Page views / day

Sessions / month

Sessions / day

User “hits”

Top 100 items

Todays Items

YesterdaysItems

Top 500 URLs

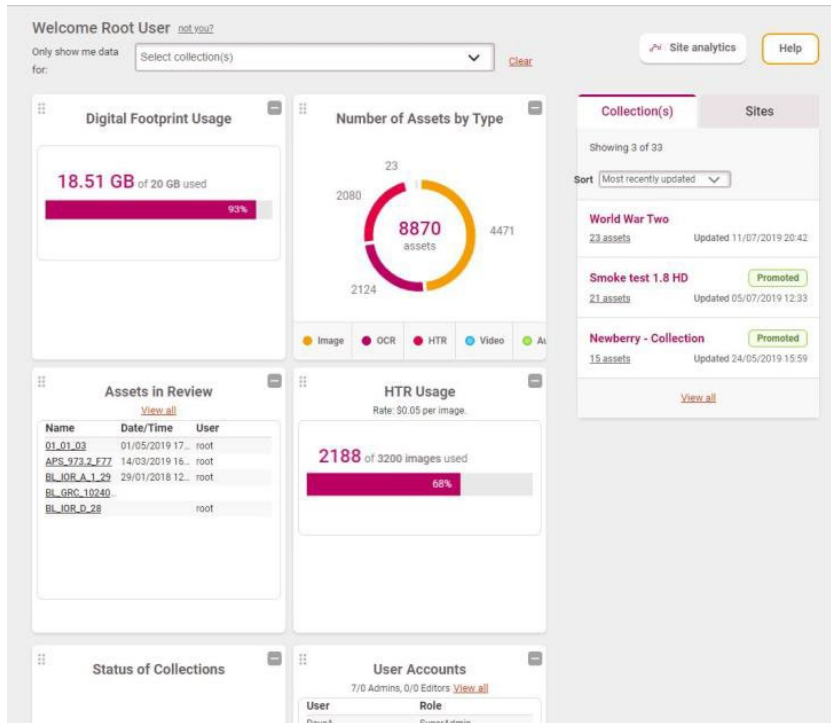
Other reports can be generated via Google Analytics.

## Quartex

In the Quartex platform, statistics are available through the My Assets dashboard. This comprehensive dashboard features monitoring widgets for the following: digital footprint usage; customer service usage; digital footprint by asset



type; status of assets; number of assets by type; status of collections; digital footprint by file extension; user accounts; last edited assets; assets in review; OCR usage; Handwritten Text Recognition (HTR) usage; AV transcription usage; along with a list of quick links to collections and sites managed through the customer’s instance. Irrelevant widgets to the customer can be minimized and the order of the widgets arranged to reflect the user’s priorities, or the information reflected can be filtered by collection. A screenshot of the dashboard is provided below. There is currently no capacity to generate or export reports, however site analytics can be obtained by setting up Google Analytics and providing the necessary tracking code. The Quartex development team also has as part of its roadmap to develop an in-platform analytics tool.



- Parameters by which reports may be refined

### WorldShare Record Manager and WorldShare ILL

Metadata reports via WorldShare, representing activity in Record Manager, can be refined by date and type of activity. Available refinements for WorldShare ILL reports include branch, material format, time period, and publication date.

### CONTENTdm

All built-in CONTENTdm reports are either summaries for each collection or aggregated across all collections. For usage statistics, it is possible to create custom reports by a large number of parameters if you are using the integrated Google Analytics. The same would be true for other analytics systems, like Matomo.

Google Analytics provides a flexible user defined parameter based reporting tool –more information can found at [https://support.google.com/analytics/topic/6014102?hl=en&ref\\_topic=1726911](https://support.google.com/analytics/topic/6014102?hl=en&ref_topic=1726911)

For Hyrax and Hyku, built-in analytics are currently in complete, but work is begun to include the following, none of which are exportable in vanilla implementations:

- Number of registered users
- Total visitors
- Returning visitors

- New visitors
- Snapshot of works and files in Administrative Sets
- Statistics filterable by date:
- Number of deposits by user
- Five newest users
- Work statistics - numbers public vs. private
- Top five file formats and quantity of each
- Top five active users
- Charts/Graphs:
- New user signups - 90 day view
- Repository size/growth - 90 day view
- Number of objects, published vs. unpublished

- Time increments or date ranges available

### WorldShare Record Manager and WorldShare ILL

- **Scope** - Staff can view statistics compiled monthly or daily, for all cataloging interfaces or for each interface alone. They can access statistics for their authorizations and for institution. They also may have access to reports for a group that includes their institution.
- **Period covered** - Monthly reports cover activity for the most recent month or for one selected month. Daily reports cover the latest single day with a report available, a single specified day, or a specified number of days beginning with a specified date.
- **History** - By default, monthly reports contain totals for 6 months including the current month or the month requested in the Period box. To view totals for more than 6 months, type the number of months in the Months box. Statistics for up to 18 months are available upon request. Daily reports show totals for the requested day(s) only. Staff can view reports only for days within the current month. To specify the number of days to view, type the desired number in the Days box. WorldShare ILL retains statistics for a rolling five-year period.

### CONTENTdm

Reports are summed by month and past months are accessible from a drop-down list. For the current month, all reports are updated nightly.

Recollect internal reporting provides for month and day views.  
 Google Analytics provides time increments from 1 sec to multiple years.

- Export options

### WorldShare Record Manager and WorldShare ILL

Reports can be downloaded and disseminated as you see fit as PDF or Excel files.

### CONTENTdm

Usage and storage reports can be exported as tab-delimited text files.

#### Recollect

Google Analytics provides the following export formats for all reports:

- CSV
- TSV
- TSV for Excel
- Excel (XLSX)
- Google Sheets
- PDF



2. How soon are statistical reports available?

**WorldShare Record Manager and WorldShare ILL**

Monthly reports are available within five days of the end of a month. A report for each day is available the following day.

**CONTENTdm**

Usage and storage reports are updated each night. Monthly aggregate summaries are available the first day of each month. Item type and format reports are generated dynamically whenever they are viewed so are always current.

**Recollect**

Data is stored in real time and reports can be run at any time.

**Quartex**

Please see response to Statistical Reporting Requirements Question #1.

**Hyrax Hyku**

These reports are available in real-time.

3. How long are statistical reports accessible?

**WorldShare Record Manager and WorldShare ILL**

Daily reports are available for the current month only. Once a monthly report is available for a preceding month, daily reports for that month are deleted.

**CONTENTdm**

Usage reports are retained indefinitely for each collection. Repository-level reports are retained for the current month and previous month, but repository-level reports could be regenerated from the individual monthly reports generated for each collection.

**Recollect**

Statistical information is kept indefinitely.

**Quartex**

Please see response to Statistical Reporting Requirements Question #1.

**Hyrax Hyku**

Ongoing

4. Are statistical reports accessible at the institution level as well as at the consortium level?

**WorldShare Record Manager and WorldShare ILL**

Yes. Group Reports provide activity performed by all institutions that are group members.

**CONTENTdm**

Reports have no institutional awareness other than the owning/subscribing institution. In most consortium situations, collections are associated with specific member institutions, so it is possible to generate institution data by aggregating the corresponding collection-level reports.

**Recollect**

Yes

**Quartex**

The My Assets dashboard in Quartex can currently be filtered by collection. If, during platform set-up, the Montana State Library chooses to associate collections to specific contributing institutions, the Montana State Library staff would then be able to determine institutional usage by collection. Because the consortium is the main administrator on the platform, all data in the My Assets dashboard would relate to the larger consortia's statistics.

Hyrax Hyku  
Yes

5. Are statistical reports that identify institution-level data in aggregate available to consortium administrators?

**WorldShare Record Manager and WorldShare ILL**

Yes. Reports are available to all authorizations for all institutions that share a group catalog.

**CONTENTdm**

No. Consortium member institutions are not accounted for with a single subscription to CONTENTdm. Collection-level reports will often correspond perfectly to institution identity, but there is no built-in aggregation of these reports by institution.

Recollect  
Yes

**Quartex**

The My Assets dashboard displays all usage to all account holders. However, the display configuration on the My Assets dashboard (ie – order of widgets and which widgets are minimized) can be customized by specific staff.

Hyrax Hyku  
Not without custom work

6. Does the statistics portal offer a dashboard for at-a-glance usage statistics?

**WorldShare Record Manager and WorldShare ILL**

OCLC Usage Statistics can be accessed from the Cataloging and WorldShare ILL login screens or by going directly to the OCLC Usage Statistics page. Staff log on to the usage statistics site using their Cataloging authorization and administrative or statistics password. After logging in, they can select any of the statistics reports available to them.

**CONTENTdm**

Yes. Usage statistics reports can be viewed at any time in the CONTENTdm Administration staff portal. Top-level aggregates are available for the current and previous months to provide an at-a-glance summary, and individual collection reports are updated nightly and directly viewable in the CONTENTdm Administration interface at any time.

Recollect  
Yes

**Quartex**

Yes. Please see screenshot in Statistical Reporting Requirements Question #1.

Hyrax Hyku  
Yes

7. Does the statistics portal offer data visualization tools?

**WorldShare Record Manager and WorldShare ILL**

Neither Cataloging or Resource Sharing Usage Statistics include data visualization tools.

#### **CONTENTdm**

No tools to visualize reports are offered.

**Recollect** utilizes Google Analytics to provide data visualization

Quartex

No data visualization tools are currently available in Quartex.

Hyrax Hyku

Yes

8. Can the statistical reports discern or remove bot searches from user counts?

#### **WorldShare Record Manager and WorldShare ILL**

This does not apply to OCLC Cataloging nor Resource Sharing services based on our authentication and authorization structure.

#### **CONTENTdm**

The built-in usage reports do not discern between bot searches and user searches To filter usage data by user type, we encourage the use Google Analytics or another usage analytics package, like Matomo.

**Recollect**

Yes

Quartex

Statistics of this nature would currently be addressed by Montana State Library connecting its Google Analytics account to the Quartex platform. As the Quartex development team begins to scope out requirements for the Quartex in-platform statistical tool, Montana State Library staff and other Quartex clients would have the opportunity to contribute their feedback to that scoping.

Hyrax Hyku

No

9. In what file formats are statistical reports available for export (CSV, etc)?

#### **WorldShare Record Manager and WorldShare ILL**

Reports can be downloaded and disseminated as you see fit as PDF or Excel files.

#### **CONTENTdm**

Reports can be downloaded as tab-delimited text files.

**Recollect**

CSV, XML

Quartex

Statistical reports are not currently exportable in Quartex.

Hyrax Hyku

This would be custom feature for Hyrax and Hyku .

10. Are statistical reports available for export in machine-readable format (JSON, XML, etc)?

**WorldShare Record Manager and WorldShare ILL**

This is not supported in Record Manager. WorldShare ILL statistical reports can be exported in a .csv file format.

**CONTENTdm**

No; this is not supported.

**Recollect**

**XML**

Statistical reports are not currently exportable in Quartex.

**Hyrax Hyku**

This would be custom feature for Hyrax and Hyku .

11. Are statistical reports able to detail usage by interface (web, OAI, API, etc)?

**WorldShare Record Manager and WorldShare ILL**

Metadata reports show Record Manager web activity as well as cataloging transactions performed via the WorldCat Metadata API.

WorldShare ILL reports detail how requests were submitted into the WorldShare ILL system (e.g., FirstSearch, WorldCat Discovery, etc.).

**CONTENTdm**

The built-in usage reports track only end-user pageviews, not API calls or harvesting processes, like OAI-PMH.

**Recollect**

Yes –Google Analytics provides usage by interface.

**Quartex**

Statistical reports are not currently able to detail usage by interface.

**Hyrax Hyku**

This would be custom feature for Hyrax and Hyku .

12. Are statistical reports and web interfaces able to integrate with Google Analytics tools, including Tag Manager?

**WorldShare Record Manager and WorldShare ILL**

OCLC's web-based Cataloging tools, including WorldShare Analytics and WorldShare ILL, do not have specific tie-ins with Google Analytics.

**CONTENTdm**

The end-user web interface supports easy, optional integration with Google Analytics. This support includes support for Events to track user behaviors, like Download, Print, and search terms. This support for Google Analytics is very easy to enable by adding your tracking ID code to CONTENTdm's Website Configuration Tool. The Website Config Tool does not currently offer such easy **integration** with Google Tag Manager, but CONTENTdm's support for JavaScript integration provides a path for support of Tag Manager through customization. CONTENTdm product management is currently evaluating the effort to build Tag Manager support into the core service.

## Recollect

Yes

## Quartex

Yes, sites can be tracked using Google Analytics, however this does not include Tag Manager.

## Hyrax Hyku

No, but this has been a request and may be available in the future.

Support for this work would be an asset for the Samvera community.

## Support Requirements

1. Please describe how support requests from consortium administrators and member library staff are acknowledged and resolved.

In response to support requests, Customer Support staff open a ticket in our Siebel RMS tracking system. The library staff can submit and check the status of service request tickets online through the OCLC Online Service Center.

Customer Support personnel provide advice on use of the product, information, and advice on forthcoming changes and/or new releases, rectification of faults, and implementation of bug fixes. OCLC endeavors to have first-line Customer Support personnel address all support requests.

If the first-line Customer Support staff cannot answer a question, they may escalate it to either a subject-matter expert within the Customer Support department, to OCLC's Operations division, or to the appropriate product manager.

Recollect uses the Zoho Desk Help Desk platform to manage support requests. Requests are lodged via the Zoho Desk portal accessed by a link in the administrator panel or via the support email address. All support requests are lodged in a support queue and the person lodging the request will receive a case number for the issue. All actions are recorded in the help desk platform and status of issues can be monitored through the portal and any status updates will be emailed to the person who lodged the issue.

To best support the needs of the Montana State Library and its contributing institutions, Quartex proposes a train-the-trainer approach. Montana State Library staff, as the designated Quartex licensee would be the primary points-of-contact for Quartex staff. All communications and training relating to the Quartex platform and all associated websites would be funneled through the Montana State Library staff. Upon contract execution, all support requests during the first year of implementation are directly managed by the United States-based Quartex Product Specialist. The Product Specialist will reach out to the Montana State Library's designated point-of-contact(s) to discuss onboarding, training, and communications to support an effective new platform launch. All member library staff who contribute content to the Montana Memory Project, would be asked to funnel their support requests with the primary contacts at the Montana State Library. During the implementation year, clients are given the option to use the Basecamp project management software suite, which Quartex staff employ for tracking issues and sharing important documentation to help clients get their platform set-up effectively. In Basecamp, if there are questions that can not be answered in the immediate, clients have the opportunity to report issues in two categories - bugs or feature requests. The Product Specialist updates fixes as they are scheduled. For feature requests, Montana State Library would be asked to indicate priority to ensure Quatex staff can best align development with the Library's needs. Once issues are resolved, each thread is closed, and kept in an archive for reference and to ensure the list of open items is kept current.

Following the implementation year, Quartex support requests are managed primarily by the Sales Support team who are all accessible via email and phone, and secondarily by the Product Specialist. Support requests can also be sent through an in-platform ticketing system.

#### Hyrex Hyku

Hyrex/Hyku are not software services, they are implemented for internal management. Consequently, there is no user support built-in that connects back to the software developer.

For user support, there is not built-in support component other than a "Contact Us," otherwise a separate support service would have to be custom integrated. For software support (ie, between product owner and the service provider who implements the software), Notch8 offers maintenance contracts.

#### 2. Please provide the average turnaround time for acknowledging and resolving support requests.

For Customer Support requests regarding functionality, we have an average call answer rate of 85% or greater within 20 seconds of call receipt. Staff wishing to leave a voice mail message will have the message returned on the same business day it was received 90+% of the time. On average, OCLC Help Desk staff responds to e-mail and Web-based support requests within 24 hours of receipt.

If members call outside of Customer Support hours, their calls will be routed to our Operations Center. (There also is no additional cost for this.) Emails sent outside of these hours are distributed the next business day.

For 24x7 emergency outage support at no additional cost, library staff can contact OCLC Operations. Our computer room is staffed 24x7 by OCLC employees who monitor OCLC systems and ensure reliability for OCLC users. In the event of a system outage or problem, the OCLC computer room staff members have immediate access to product experts who will be paged to provide any necessary support.

Outages are addressed immediately by our Operations team. If a situation presented to Operations is not a system outage, the issue will be handled the next business day by Customer Support.

#### Recollect

The service levels for support are:

Prevents Use-System not accessible to the user

Response: within 2 business hours

Fault Resolution or workaround: As soon as possible

Serious Issue-System use is significantly impaired

Response: within 1 business day

Fault Resolution or workaround: Within 3 business days

Other-System does not operate as expected

Response: within 5 business days

Fault Resolution or workaround: As advised

Feature enhancement requests, training or other services we will respond within 2 working days.

#### Quartex



All Quartex support requests will be acknowledged within 24 hours, Monday – Friday, excluding holidays. Resolution of support requests will be dependent upon the identified issue, with protocol noted above.

Hyrax Hyku

Per our maintenance agreement:

24/7 on call emergency support for downtime and critical failures

1 hour weekday and 4 hour weekend response for non-critical events

3. Please describe, as applicable, how and when direct support to member library staff is available:

- Via email

Recollect

Anytime

Hyrax Hyku

Depending on the urgency level, we will respond within 1 hour or within one business day.

- Via help desk system

Recollect

Anytime

Hyrax Hyku

N/A

- Via telephone

Recollect

During business hours by arrangement

OCLC Customer Support is staffed from 6 a.m. to 4 p.m. Mountain Time, Monday through Friday, with means of contact noted below.

- **Via email**

Staff can email OCLC Customer Support at [support@oclc.org](mailto:support@oclc.org).

- **Via help desk system**

The library staff can submit and check the status of service request tickets online through the OCLC Online Service Center.

- **Via telephone**

Staff can phone OCLC Customer Support at 800-848-5800.

Quartex

As described in Support Requirements Question #1, during the implementation year, the Quartex Product Specialist is available via Basecamp, email or phone, to the Montana State Library designated staff as needed 9 am – 4 pm EST, Monday through Friday, excluding holidays. In addition to the personal customer service support described above, the Product Specialist and development team are continually documenting helpful tips and suggestions for simplified workflows in an in-platform, fully searchable Help Centre, complete with glossary, that can be accessed by Montana State Library and its contributing members 24hrs a day.

As Montana State Library staff begin working within the Quartex platform, they will have the option to schedule check-ins with the Quartex Product Specialist twice a month. These regular check-ins can be used to discuss workflows, to ensure the platform is being utilized to simplify processes, and to determine if intervention from Quartex development staff is necessary. Furthermore, the Quartex platform will be undergoing further enhancements implemented to benefit all Quartex clients over the life of the Montana State Library contract. As updates to the platform are released, the Quartex Product Specialist may schedule additional virtual training sessions to review platform updates and workflows.

#### Hyrex Hyku

Only in emergency - we favor email or slack

4. Please explain any limits to or additional costs associated with technical support to consortium administrator or to member libraries.

Any staff member may contact OCLC Customer Support. There is no additional cost for the support described above.

#### Recollect

Additional costs apply when providing user support and training i.e. when an issue is not a fault with the platform. A contract to provide support to administrators can be provided if desired.

#### Quartex

During the first year of implementation, Montana State Library would have up to 50 hours of support specifically related to launching their Quartex platform. Please note that these customer support hours do not include deliverables related to pre-ingest workflows (such as extracting data from the Montana State Library's current platform, data clean-up or conversion, authority control or other data related services). If Montana State Library staff would like pre-ingest support, Adam Matthew Digital can recommend other reputable library service providers who have expertise in data extraction and clean-up.

Once Montana State Library content is ready to be migrated to the Quartex platform, Adam Matthew Digital's customer service support hours are customized to help maximize the Quartex platform's functionality, build efficient workflows, and to maximize display and discoverability of digitized assets for Montana State Library patrons and researchers once the Montana State Library digital collections site is made public. As the primary owner of the Quartex license, Montana State Library would be asked to designate staff for the Quartex Product Specialist to train in a train-the-trainer model for Montana State Library staff to then support its contributing members. If a different approach is desired, alternate pricing should be requested.

Following the 50 hours of customer support offered in the implementation year, Quartex customers are provided 10 hours of customer support per year for each subsequent year of the contract. Additional customer service support hours may be purchased, as needed, in blocks of 10 hours for \$1,000 per block.

#### Hyrex Hyku

Support is part of our standard maintenance contract, which can range \$300/month to \$1000/month depending on the number of services supported, and includes:

- Timely application of security patches and critical software updates
- 24/7 on call emergency support for downtime and critical failures
- 1 hour weekday and 4 hour weekend response for non-critical events
- Enhanced server health monitoring
- Minor text and image corrections that do not affect design of the application
- Data backup and archival

## Technology Requirements

### Accessibility

1. Are all interfaces for both end-users and staff accessible, compliant with current Americans with Disabilities Act (ADA) standards?

OCLC has a global user base and develops products in adherence with the guidelines in Section 508c of the Rehabilitation Act of 1978 (United States).

Yes –Recollect complies with the ADA standards

#### Quartex

Adam Matthew Digital is committed to delivering WCAG 2.1 AA standards across the Quartex platform. The revised Section 508 standards follow the WCAG standards closely and although the ADA is not explicit in its requirements, it is understood that WCAG standards are the benchmark for compliance. See additional responses below for more details on WCAG.

#### Hyrax Hyku

No. On the whole, Hyrax and Hyku are both minimal on accessibility compliance without custom development. Product owners are currently exploring a gap analysis for WCAG 2.0 Level AA compliance and this is on the roadmap, but has been difficult to advance for lack of sponsorship from a project partner.

2. Are all interfaces for both end-users and staff accessible, compliant with WCAG 2.0 Level AA guidelines?

OCLC has embarked on a program to comply with the Web Content Accessibility Guidelines (WCAG). This multi-standard strategy ensures the highest level of overall accessibility to users of the OCLC's services around the world. OCLC strives to achieve WCAG 2.0 AA compliance in our applications, which includes the Section 508c guidelines.

Yes –Recollect user interfaces are WCAG 2.0 compliant

The Quartex platform is formed of two main parts: the back-end, for which there is login access by administrative users; and the front-end websites generated by the platform, which are designed to be open access to end-users. Front-end websites generated using the Quartex platform are all fully responsive.

The back-end staff interface is comprised of defined components for which accessibility elements are constant. Administrative users can, in the back-end, configure the front-end styling in multiple different ways. Front-end layouts, styles and content are created and imported by the customer. The Platform provides various means for administrative users to support publication of WCAG 2.1 AA compliant websites, e.g. default option of high contrast mode, wide variety of color selections for design, alt text area to tag text to applied images and ability to generate transcripts for printed and A/V content in platform.

We have recently completed an internal accessibility audit, which has highlighted certain areas which require further action to improve compliance with WCAG 2.1 AA guidelines, notably in consistent application of ARIA tags, which will impact elements of Accessibility Questions #4, 6, 7 and 8. We are committed to resolving these issues by the end of Q1 2020.

#### Hyrax Hyku

No. On the whole, Hyrax and Hyku are both minimal on accessibility compliance without custom development. Product owners are currently exploring a gap analysis for WCAG 2.0 Level AA compliance and this is on the roadmap, but has

been difficult to advance for lack of sponsorship from a project partner.

3. Are instructions available for interface keyboard accessibility? Please describe.

We do not provide instructions for keyboard use.

Recollect

Yes –these are added as an information/help page on the site

Quartex

Currently end-users employ their tab keys to navigate through a page and use arrows to utilize the image viewer controls. Keyboard shortcut controls and accompanying instructions are on the Quartex development roadmap for Q1 2020.

Hyrax Hyku

No. On the whole, Hyrax and Hyku are both minimal on accessibility compliance without custom development. Product owners are currently exploring a gap analysis for WCAG 2.0 Level AA compliance and this is on the roadmap, but has been difficult to advance for lack of sponsorship from a project partner.

4. Please describe screen reader capability and provide accuracy rates for both end-user and administrative interfaces.

We use WCAG/508 and EN 301 549 guidelines to inform us, but do not track accuracy rates.

Recollect includes ARIA specific element tags to help define and add context for screen reader, including a “skip navigation” link allowing screen readers to skip straight to body text without needing traverse menu items on every page. We can not provide accuracy rates at this time.

Quartex

Please see response to Accessibility Question #2. Accuracy rates for transcriptions are entirely reliant on the quality of the input files. Appendix A provides an example of a printed document with an achieved an OCR accuracy rate of 100%.

Hyrax Hyku

Moderately effective, but somewhat confused by inconsistent element tagging.

5. Does the product provide capability to identify images using alt text?

Cataloging and WorldShare ILL services do not support alternative text for images. WorldCat Discovery supports alternative text for images. CONTENTdm uses a digital item’s title metadata to provide alt text for the associated image.

Recollect

Alt tags are applied to all images to ensure that screen readers describe the screen without confusion.

Yes, Quartex provides the capability to identify images using alt text.

Hyrax Hyku

Not without custom work

6. Does the product provide capability for metadata and transcripts to be accurately and logically read by a screen reader?

Of our proposed services, only CONTENTdm includes audio/visual information. CONTENTdm does support audio and video descriptions by using the Transcript area to transcribe the information.

Yes –Recollect includes ARIA specific element tags.

Yes, Quartex provides the capability for metadata and transcripts to be accurately and logically read by a screen reader. Please see details in Accessibility Question #2.

Hyrax Hyku  
This would require custom work.

7. Please describe how information presented visually is equally accessible to a screen reader.

We use WCAG/508 and EN 301 549 guidelines to inform us.

#### Recollect

All elements on the screen include ARIA specific element tags, including a “skip navigation” link.

In Quartex, information/ functionality reliant on visual representation is kept to a minimum. We have elements that are focusable via tabbing, hence the end-user can navigate through the page by tabbing and the screen reader can give an audio description of the element when the end-user sets focus on it. The ability to provide transcriptions alongside documents and A/V content is available in the Quartex platform, as is the ability to supply alt text for images.

Hyrax Hyku  
For the Admin interface, this could be achieved with custom work.  
Making uploaded content (works) readable would be a substantial feature to develop, though Alt Text fields for depositors to populate would be a simpler feature.

8. Please describe how support for HTML-ARIA tags are implemented to meet industry standards.

We use WCAG/508 and EN 301 549 guidelines to inform us.

Recollect includes ARIA specific element tags to help define and add context for screen reader, including a “skip navigation” link allowing screen readers to skip straight to body text without needing traverse menu items on every page

Quartex employs ARIA tags to give better descriptions to certain elements. Most notably: aria-hidden, aria-live, aria-label, aria-expanded, aria-describedby, aria-selected, aia-labelledby. As flagged in Accessibility Question #2, our recent accessibility audit has identified some areas where we will make further improvements to implementation of ARIA tags by the end of Q1 2020.

Hyrax Hyku  
This is present but inconsistent.

## 9. Can be transcripts be formatted text to improve readability?

A full range of text formatting options is not supported, but CONTENTdm does provide methods to include line breaks in all metadata fields and transcripts.

Recollect

Yes

Quartex

No, transcriptions cannot be formatted text to improve readability.

Hyrax Hyku

Yes.

### Software

#### 1. Please describe hosted environment.

OCLC's cloud applications run in a multi-tenant, distributed environment, residing almost completely on VMs (virtual machines). The exceptions are the database hosts, which are on physical servers. The VMs reside on physical hosts (or clusters) that are shared with many other production hosts. They are segregated even/odd, so even a total failure of one physical cluster would affect a maximum of only half of the virtual hosts. The VM manager automatically migrates any failed VM hosts to other physical boxes, and the applications would once more be available. The library requires only a web browser to access the software.

Recollect is hosted in an Amazon Web Services data centre. The following diagramme reflects the architecture of the hosted environment.

Quartex

Quartex employs cloud-based hosting, storing files in Amazon S3 servers. Assets and asset-derived data are stored in multiple availability zones in two distinct regions within the United States. The Quartex technical infrastructure can be easily scaled to increase geographical locations and the number of redundant copies of data. See Appendix B for a diagram of the system architecture.

Hyrax Hyku

This depends on user requirements.

#### 2. Please describe backup redundancies using industry standard procedures.

We backup our data daily, both locally for data recovery and remotely for long-term recovery. We maintain several tiers of data backups to ensure the integrity of the data it holds and the services it provides. First, we run clustered servers that can survive a failure of an individual physical server that comprise the cluster. Second, we replicate database updates in real time to a second database instance housed at a remote data center that we keep synchronized to our primary production database. We also replicate critical systems at the remote data center. Third, we perform full database backups nightly; with backups of our database transaction logs made hourly; and server backups at least daily. Fourth, we transfer a set of backup data to an off-site storage facility on a daily basis to ensure that remote data is no more than 2 days old. The backups are cloned over secure links to a secure disk archive. All of these backup mechanisms work while the services are online. We also continuously monitor the status of our backup mechanisms and periodically test them to ensure we can rely on them when we must recover data.

Recollect operates in multiple AWS availability zones and the data base is continuously backed up and stored in AWS.



## Quartex

Customer Data is backed up through Amazon Web Services (AWS) cloud-based hosting solution and stored at different data centres in different regions within the United States. This ensures back-up of Customer Data is carried out as follows:

- Assets (which for the purposes of this Back Up Policy covers Customer Data which consists of image, audio and video files uploaded by the Customer as well as images uploaded by the Customer to the media library) are stored across multiple data centres and regions.
- Assets in any collections defined by the Customer can be downloaded, by collection, at any time.
- A soft delete function offers provision for retrieval of any Assets deleted up to a maximum of 90 days prior.
- Metadata (which for the purposes of this Back Up Policy covers Customer Data which comprises cataloguing information relating to the Assets) and front-end configuration and styling information, is stored using a MySQL Amazon Relational Database Service.
- A replica database is stored in a different data centre.
- Snapshots of Metadata are taken every 24 hours and backed up to different regions.
- Snapshots of Metadata are stored for a 90 day period.
- Metadata relating to Assets included in any collections defined by the Customer can be exported from the Software at any time.
- For Asset or Metadata retrieval the Customer generates an in-platform support ticket and AMD will use its commercially reasonable endeavours to restore the requested Assets, Metadata and front-end configuration details within one Business Day.

## Hyrax Hyku

This depends on user requirements, but co-located data backup is an option, whether on the clients' server, or via cloud options like Digital Ocean or AWS.

### 3. Is your product HTML 5 compliant?

## OCLC

Yes.

Yes Recollect is HTML 5 compliant.

Quartex will be entirely html5 compliant by Q1 2020.

## Hyrax Hyku

Yes

### 4. Are SSL certificates supplied and maintained?

Yes. Note that for CONTENTdm, if you choose to use a non-oclc.org domain name, you will need to provide OCLC with the SSL certificates for installation in our network configuration.

Yes –Recollect uses SSL certificates provided by AWS.

Quartex can support any custom domain name – but this requires the client to supply and manage the relevant SSL certificates. There is an option to use a default Quartex-generated URL. In this instance Adam Matthew Digital would supply and manage SSL certification.

## Hyrax Hyku

Yes

5. Is content versioning available?

**Cataloging**

For Record Manager, there is no specific “versioning” outside of the functionality provided through the online save file for bibliographic and authority records.

**WorldShare ILL**

There is no versioning of WorldShare ILL. It is web-based, and users always get the latest release.

**CONTENTdm**

There is no specific versioning support in CONTENTdm.

Recollect provides a comprehensive audit trail which enables all changes to be tracked and for any change to the content to be rolled back. Additionally, multiple copies of digital assets can be associated with any collection item, allowing previous and current files to be associated with the item.

No, content versioning is not currently available.

**Hyrax Hyku**

Yes

6. What is your up-time guarantee for the service?

OCLC’s documented Service Level Agreement states that we will use commercially reasonable efforts to ensure OCLC’s Systems are available 99.5% of the time (the “Up-time Commitment”). The up-time will be measured monthly, calculated to include twenty-four (24) hours per day over each month, but excluding from the numerator and denominator in the calculation the duration in time of any temporary shutdowns due to scheduled maintenance, telecommunications, or power disruptions caused by third parties, and any other causes beyond OCLC’s reasonable control.

Recollect contracts to 98.5% availability.

**Quartex**

Amazon Web Services (AWS) Cloudwatch is currently used to monitor AWS infrastructure, along with Site 24x7 monitoring to show system errors and site downtime. The up-time guarantee is 99%. Maintenance performed on the platform will typically be scheduled outside core United States working hours.

**Hyrax Hyku**

No specific guarantee, other than the services outlined in our maintenance plan (above).

7. What is your average service recovery time?

Over the past 12 months, the average recovery time was 42 minutes.

**Recollect**

Average service recovery is less than 30 minutes for system outages.

**Quartex**

Recovery time varies according to the nature of any outage. Quartex aims for 2 hours for a service to be resumed pending any technicalities. Turnaround for recovery may take longer, depending on resource and nature and time of outage.

Hyrax Hyku

We don't have this data.

8. Please describe process for and frequency of automatic data backups and recovery.

We backup our data daily, both locally for data recovery and remotely for long-term recovery. We maintain several tiers of data backups to ensure the integrity of the data it holds and the services it provides. First, we run clustered servers that can survive a failure of an individual physical server that comprise the cluster. Second, we replicate database updates in real time to a second database instance housed at a remote data center that we keep synchronized to our primary production database. We also replicate critical systems at the remote data center. Third, we perform full database backups nightly; with backups of our database transaction logs made hourly; and server backups at least daily. Fourth, we transfer a set of backup data to an off-site storage facility on a daily basis to ensure that remote data is no more than 2 days old. The backups are cloned over secure links to a secure disk archive. All of these backup mechanisms work while the services are online. We also continuously monitor the status of our backup mechanisms and periodically test them to ensure we can rely on them when we must recover data.

Recollect

Data backups occur every hour.

Quartex

A replica database is stored in a different data center. Snapshots of metadata are taken every 24 hours and backed up to different regions. Snapshots of metadata are stored for a 90-day period.

Hyrax Hyku

This varies depending on the client requirements.

9. Please describe the process of running fixity checks and resolving identified issues.

CONTENTdm's separate preservation archive service complements its collection-building workflows. As you provide your files, the preservation archive develops a health record for each package so you can confirm that we received all the files you sent and that they're all free of viruses and in the format that matches their file extensions. The system also creates a unique fixity key so we can alert you if our regular, automatic inspections discover any alterations. Each month, you receive a report on the health of your collection.

The Recollect Digital Preservation module is available to undertake fixity checks, typically every 90 days, and to replace corrupt files with back up copies automatically. All activity is reported to the administrator.

The Quartex Technical Infrastructure Team has developed a process which creates a FileHash of assets uploaded to Quartex. The FileHash is created from reading the bytes of the file and hashing it using a SHA256 algorithm. This algorithm is run when the asset is uploaded into Quartex. If the file has changed, the hash won't be the same and the team is alerted to the fact that the files are different. Quartex currently notifies the Technical Development Team regarding file integrity issues. Developers can create alert generation to administrator-level users if integrity checks uncover a problem and their input is required to resolve issues.

Hyrax Hyku

n/a

10. What authentication methods are available to staff and to end-users?

For Cataloging WorldShare ILL, and WorldCat Discovery, library staff and patron access can be defined by most institutions using federated models, such as Shibboleth, or the institution's LDAP. For authenticated access, OCLC's cloud offerings employs Security Assertion Markup Language (SAML) 3.0 XML-based standard for exchanging authentication and authorization data between security domains via the Identity Management (IDM) Module. For CONTENTdm, we only support OCLC's eLDAP accounts (WorldCat.org accounts) for all staff or end-user access.

Recollect provides user authentication via SAML or OAUTH to identity management services such as an organisations Active Directory server, or social media OAUTH services e.g. Facebook, Google, LinkedIn, etc.

Username and password are required for staff access to the administrative end of the Quartex platform. Two-Factor Authentication is also available as an option for customers to further authenticate user access, through a time-based one-time password algorithm, for which we employ Google Authenticator.

The front-end is designed for open access publishing of digital content. We will be developing and implementing access control options in 2020, initially limiting access by IP range. Further planned access controls or front-end login functionality include support of SSO systems such as Shibboleth.

Currently, end-users can set up individual user accounts, known as My Account from the front-end of the Quartex platform. Each account is accessible via username and password. Once set-up, end-users can save bookmarked assets or individual images from within an asset to their account for future use. In the future, the functionality will be broadened to include saved searches.

Hyrax Hyku  
n/a

#### 11. Please describe how apps and web presence are kept current.

As the proposed services are cloud-based, OCLC performs general system maintenance and enhancements, which include new features, improvements to existing features, and bug fixes. Cataloging and WorldShare ILL maintenance is generally performed once a month and CONTENTdm's is roughly quarterly to introduce new functionality or to fix problems that have been discovered.

OCLC staff perform all software maintenance and upgrades on servers at our data center on Sundays, 1:00 a.m. - 5:00 a.m. Central Time. Between scheduled installs, issues are fixed with patch installs.

Recollect is provided as a Software as a Service and shares the same code as the rest of the Recollect community. The Recollect platform is developed on a continuous release basis with updates providing bug fixes and new features released every fortnight.

Quartex is offered as Software as a Service and is subject to continuous development on a schedule of rolling releases. The Quartex Uploader, a desktop app available for quick, stable and secure upload of content to the Quartex system, includes an automatic notification to Administrative users when a new version is available for download.

Hyrax Hyku  
n/a

#### 12. Is the product interoperable with Z39.50?

##### **WorldShare Record Manager**

Yes. The OCLC Z39.50 Cataloging service allows libraries to access WorldCat to search and retrieve MARC records for cataloging, edit records in their local systems, and set holding information in WorldCat.

##### **WorldShare ILL**

WorldShare ILL does not use Z39.50.

#### **CONTENTdm**

CONTENTdm does not explicitly support for Z39.50. While the underlying data format in CONTENTdm does not use MARC, there are tools available to crosswalk CONTENTdm data to MARC and create WorldCat records.

No –Recollect does not currently support Z39.50, this is on the product roadmap for development.

No, Quartex is not interoperable with Z39.50. We have no plans to support this protocol at this time.

Hyrax Hyku

Not off the shelf

### 13. Is the product interoperable with SirsiDynix Symphony?

Yes.

#### **WorldShare Record Manager and WorldShare ILL**

The OCLC Cataloging subscription includes flexible and easy-to-use tools that allow staff to import, and export data by file or in batches, as well as editing tools to make local additions and edits.

And OCLC supports ISO ILL Direct Request (ISO IDR; i.e., generate borrowing requests from a local ILS), including SirsiDynix Symphony.

#### **CONTENTdm**

CONTENTdm supports several export formats (tab-delimited, standard XML, custom XML, OAI-PMH, IIF) and has a full data access API Web service for fully custom exports.

Recollect is not currently operable with SirsiDynix Symphony however an API can be developed if required.

As indicated in responses by the Montana State Library Question and Answer section of the RFI, this question pertains more to bibliographic cataloging and ILL, which Quartex is not intended for or developed to support. However, the Quartex Team is committed to the development of integration mechanisms with discovery products such as SirsiDynix Enterprise through an API or similar function. We are keen to explore integration with ILS products through the SRU protocol. Metadata harvest to Quartex is possible through OAI-PMH. Quartex-hosted metadata can also be exposed for harvest via OAI-PMH by other repositories, such as DPLA.

Hyrax Hyku

Not off the shelf

### 14. Is the product interoperable with Ex Libris Alma?

Yes.

#### **WorldShare Record Manager and WorldShare ILL**

The OCLC Cataloging subscription includes flexible and easy-to-use tools that allow staff to import, and export data by file or in batches, as well as editing tools to make local additions and edits.

And OCLC supports ISO ILL Direct Request (ISO IDR; i.e., generate borrowing requests from a local ILS), including Alma.

#### **CONTENTdm**

CONTENTdm supports several export formats (tab-delimited, standard XML, custom XML, OAI-PMH, IIIF) and has a full data access API Web service for fully custom exports.

Recollect is not currently operable with Ex Libris Alma however an API can be developed if required.

As indicated in responses by the Montana State Library Question and Answer section of the RFI, this question pertains more to bibliographic cataloging and ILL, which Quartex is not intended for or developed to support.

Hyrax Hyku  
Not off the shelf

15. Please describe how updates and/or development roadmaps are shared with customers.

OCLC maintains a detailed development roadmap which is shared with member libraries for input on the prioritization of functions. Based on release cycles of new functions, libraries are always aware of what is planned for the next two releases. Beyond this, they have access to planned development not yet scheduled for a specific release.

Staff can always find release notes on our online Customer Support site and Community Center.

A roadmap is made available on the Recollect Community site where administrators can submit new feature requests and to comment on the roadmap. Annual Recollect Administrator forums are held where administrators can discuss the roadmap with the Recollect product management team. Release notes and updated documentation are provided with each release to the administrator community.

Quartex customers are notified of updates prior to release and are supplied with release notes either through Basecamp or via email depending on preference/phase of their build. The Quartex User Manual and Help Center are updated in line with new release workflows and functionality. Additionally, the Quartex Product Specialist will be available for training on platform updates, if needed.

Hyrax Hyku  
As open-source software, development roadmaps for Hyrax and Hyku are available on the web. A plan can be put in place to keep updates current.

16. Please provide recommended bandwidth and internet browser requirements for a web-based tool.

Because our services are fully hosted, it is necessary only that a browser connect to the hosted server over the libraries' connection to the Internet. As with all services that depend on Internet connectivity, more bandwidth is always better. OCLC recommends a broadband connection of 1 Mbit/s download and 100 Kbit/s upload bandwidth. Recommended browsers include Google Chrome, Mozilla Firefox, Internet Explorer, and Safari.

Recollect is designed to work with slowest commonly available bandwidths and is tested with the currently supported versions of IE, Edge, Chrome, Firefox and Safari.

Quartex supports the following browsers, IE, Edge, Firefox, Chrome. There are currently no bandwidth requirements.

Hyrax Hyku  
n/a

17. Please outline what industry standard organizations your organization actively participates in and/or contributes to.



OCLC is a member of NISO and is represented on the NISO board. Historically it has had active involvement in the creation of several NISO standards including Z39.50, SRU/SRW, NCIP, etc. and is the NISO Maintenance Agency for the OpenURL standard. OCLC has always supported the deployment of appropriate standards by being an early adopter of new standards. Support is also given by being the maintenance agency for various standards such as OpenURL and NCIP.

And as libraries move to BIBFRAME, OCLC remains committed to working with the Library of Congress in support of changes to core library standards. Additionally, OCLC recognizes that the landscape will become more complex, with a mix of MARC, BIBFRAME, and other standards. OCLC will continue to support and facilitate the model of shared cataloging in this new environment, to create efficiencies and improve library user experiences.

OCLC is a founding member of the IIF Consortium (International Image Interoperability Framework) and staff are active participants in the IIF working groups and official standards definition committee (TRC). OCLC also provides real-world support for the IIF standard by integrating support for the IIF APIs into CONTENTdm.

Recollect Associate Frederick Zarndt participates with NDSA, the ALTO XML Board, and IFLA's Committee on Standards.

Quartex was launched as a resource for use outside of Adam Matthew Digital in 2018. As a newly public digital collections tool, we will seek to adhere to comply with relevant ISO standards.

Hyrax Hyku

n/a

### Staff Access

1. Can multiple simultaneous users upload and edit content? Please describe any limits on simultaneous access and/or number of available staff and administrator accounts.

Yes. There are no limits to the number of simultaneous users who can access our cloud-based services. services are highly scalable, with the ability to support any number of simultaneous users without negatively affecting system performance. OCLC continuously plans for capacity needs of the services, allowing them to scale to meet the needs of growing user demands.

Recollect

Yes, simultaneous users can upload and edit content. There are no limits to staff and administrator accounts.

Quartex

Users who are able to upload and edit content into the administrative side of the Quartex platform fall into three User Subscription categories, all of which require a sign-in authentication:

Administrator: full access;

Editor: cataloguing and collection curation;

Reader: search and access only.

The number of User Subscriptions proposed for Montana State Library is 5 administrators level users and 50 editor level users and 50 reader level users. Additional users may be purchased for \$1,000 for a block of Authorized Users comprising of: 1 Administrator, 5 Editors and 25 Readers. Quartex warns Authorized Users working in the back-end if another user has recently been working on the same record, or has it open.

Hyrax Hyku

Yes

2. Please describe how different levels of administrator access may be assigned within consortium.

## WorldShare Record Manager and WorldShare ILL

Using the Admin module, authorized staff members assign staff to pre-defined roles that grant them access to those parts of the system they need for their work and their permissions for what they may do in those parts of the system. Staff with admin privileges may assign these roles to any other staff member by simply accessing their record and clicking on the roles that staff member should be authorized for. The services offer roles-based permission, and staff may have multiple roles assigned. The roles have granularity; for example, a student assistant or staff will have fewer permissions than an administrative level of access.

## CONTENTdm

User rights to specific staff functions can be assigned at a granular level for several different operations, as well as collection-by-collection. Access to content through the end user interface can be assigned to IP addresses/ranges as well as individual usernames.

Recollect supports the following levels of administrator access:

1. Administrator –full access i.e. site configuration, user management and content management
2. Site Manager –user management and content management
3. Editor –content management Additionally, the access control module limits editor access to collections they manage.

As described in Staff Access Question #1, each Quartex license comes with an established number of User Subscriptions, with different levels of access. These comprise Administrator, Editor and Reader level users. The “Admin” role provides this user with access to all areas of a customer’s instance of Quartex. The “Editor” can be created with basic permissions for metadata creation only or with additional permissions to enable processes to be run and configuration changes to be made. A “Reader” is only able to view asset information in the back-end. Readers cannot edit metadata or view any configuration options. Only Administrators and specified Editors have permissions to import, edit or delete assets. These accounts are maintained through the User Manager module by the customer’s admin.

If Montana State Library wishes to further refine tiered Authorized User control, additional conversations with Quartex development staff would be necessary.

## Hyrax Hyku

Currently there are five roles defined in Hyku. These are:

- **Super Administrator** (Super Admin) - Applicable only in multi-tenant instances of Hyku, such as those implemented by a hosted service provider. Can assign the role of Repository Administrator to one or more users per tenant. A UI for this role is now in development.
- **Repository Administrator** (Admin) - has full management control of repository’s configuration, users, and all content. The Admin can assign a role to an individual user and manage their role(s) in administrative set workflows. The Admin can create a group of users, and manage and assign roles to the group. (Note: currently it is not possible to assign the role of Admin to other users in the UI; this enhancement will be added.)
- **Administrative Set Manager** (Manager) - assigned by Repository Administrator at the Administrative Set level. As the name suggests, has full management control of the set, including the ability to edit the set metadata, participants, and release and visibility settings. Managers can also review works submitted for approval, edit work metadata, add to or remove files from a work, and add new works to the set.
- **Depositor** - can add works to the repository’s default administrative set and collection or to other sets as assigned by the Administrator or a Manager
- **Administrative Set Viewer** (Viewer) - can see, but not manage, all works in an Administrative Set, regardless of visibility settings. This role is

appropriate for users who require transparent visibility to the contents of an admin set but do not require any operational access. *Note: this role is assignable in the UI but functionally has not yet been implemented in the application.*

Permissions for each of the implemented roles are detailed in the following chart.

	Super Administrator	Repository Admin	Admin Set Manager	Depositor
Create Repository	✓			
Configure Repository settings		✓		
View All Admin Sets and Collections		✓		
View All Repository Activity and Reports		✓		
Create Admin Set		✓		
Set Admin Set Default Access Controls		✓	✓	
Configure Admin Set Workflow		✓	✓	
Add/Remove Admin Set Managers		✓	✓	
Add/Remove Depositors		✓	✓	
Add/Remove Viewers		✓	✓	
Add/Remove Groups		✓	✓	
Review and Approve Work		✓	✓	
Create Collection		✓	✓	✓
Add Works		✓	✓	✓
Assign a Proxy Depositor		✓	✓	✓
Transfer Work Ownership		✓	✓	✓
Create User Profile		✓	✓	✓
Batch Upload		✓	✓	✓
Add/Edit Metadata		✓	✓	✓
Add/Edit Work Structure		✓	✓	✓
Set Work Access Controls		✓	✓	✓
Publish Work		✓	✓	✓
Edit Published Work		✓	✓	✓
Delete File in my Work		✓	✓	✓
Delete My Work		✓	✓	✓
Delete My Collection		✓	✓	✓
Delete Any Work in Managed Admin Set		✓	✓	
Delete Any Work in Repository		✓		
Delete Any Collection		✓		
Delete non-Default Admin Set		✓		

## End-User Interface

1. Please describe ability to build and customize web pages at the consortium level as well as at the collection and/or institution level.

### WorldCat Discovery

Library staff can use the Service Configuration module to customize the WorldCat Discovery interface. You can apply a logo and color options for backgrounds and links, change the wording on the requesting options, and integrate links to external services.

You can customize search results by defining the individual library or entire institution to determine the priority position in search results. This also lets you choose a specific branch to search alone. You may also configure table column

headings that display location and availability information retrieved from the ILS (e.g., location, status, and call number). The Service Configuration module also lets you configure available databases from OCLC's central index, create database groups and define default databases to provide initial search results.

### **CONTENTdm**

CONTENTdm supports extensive web page customization through a managed staff UI that provides graphical editing tools. For advanced users, CONTENTdm supports direct upload of fully custom HTML and CSS, as well as JavaScript for modifying website behaviors and formatting or for adding new features and functions. OCLC provides a growing Cookbook of example advanced customizations that are ready-to-use and require little web development experience. Customizations in CONTENTdm can be applied at the global/sitewide level and/or at the individual collection level.

Recollect is a configurable platform and custom pages can be developed by the administrator in the platform. Using these custom pages, each contributor can have their own home page inside the site with their identity shown and access to their collection within the total Recollect site. Each home page would have a unique child URL of the core site for example: <http://www.montanamemory.org/pages/cartercountymuseum>

Each Quartex license comes with one website/URL included, which can be entirely customized based on the client's preferences. For consortia members who wish to have their own website with a unique look and feel, additional URLs can be attached to the Montana State Library Quartex license for a \$2,500 per URL annual subscription cost. Within Quartex, all assets would be stored in the single instance of the platform but can be published to as many digital exhibits, websites associated with the license, and as many static content pages as the client wishes. In this arrangement, the client will only ever have to manage one instance of the asset, independent of where it is published. Users can configure what metadata they wish to publish to the front-end of each website. To facilitate content management, each Site Manager includes a Styles wizard, media library, catalog and metadata display configuration, plus the ability to build pages using a variety of content items (list). The Styles wizard walks administrative users through the design process from color palette and font suites, to designing their masthead and footer. The media library enables users to feature additional images on their site outside of their assets. And rather than limiting page layouts to specific templates, users can construct their pages using any assortment of the following content blocks:

- Text box
- Search box
- Banner
- Two or multiple thumbnails with text

☒☒ Text A-Z: Creates an alphabetized list of terms, such as a glossary or a list of contributor biographies.

- Search Categories: Enables end-users to construct complex queries using terms from multiple large controlled vocabularies; makes it possible to feature a particular vocabulary on a content page to facilitate browsing.
- iFrame: Displays interactive content hosted outside Quartex, such as videos from YouTube or Vimeo, interactive maps or timelines, as well as content that Quartex is currently unable to host such as 3D objects or 360 images.

### **Hyrax Hyku**

In Hyku, a basic there's a basic admin ability to change key page features per tenant, like font, color, banner image. Hyrax has some of this, but is less robust. Design and custom theming is available as part of the implementation plan.

2. Do the website and apps feature responsive design? Please describe.

### **WorldCat Discovery**

Yes, WorldCat Discovery is based on responsive design, so it automatically adjusts the interface from desktop, to tablet, to smart phone screen size. Data enhancements, such as clustering similar editions and formats of a single work together, provide comprehensive views of what is available. User-friendly features such as cover art, the capability to

mark and share items through temporary lists and email and the ability to export to reference citation tools keep results sets manageable and appealing. Because WorldCat Discovery uses your device's web browser, it is device and operating system independent.

### **CONTENTdm**

Yes, the CONTENTdm end user interface is fully responsive and is tested on mobile phones, tablets, and desktop browsers. Any improvements or new features to CONTENTdm are always designed to be responsive to any screen size and support touchscreens, as well as keyboard and mouse interaction.

Recollect utilizes a responsive design that recognizes desktop, tablet and phone formats and adjusts the user interface to suit the format. This includes resizing graphic layouts, changing menu locations, changing search behavior and so on.

Quartex Yes, front-end websites generated using the Quartex platform are all fully responsive, optimized for use across desktop, tablet and mobile devices.

### **Hyrax Hyku**

Yes. Functional viewing at most standard breakpoints.

### **3. Is the interface fully searchable?**

#### **WorldCat Discovery**

Yes, WorldCat Discovery is built on the WorldCat database, allowing users to search beyond just their own holdings in a single search, including e-books, full-text articles, and streaming videos. It includes both basic and advanced searching capabilities.

**Basic Search** - A user can enter as much known information as possible in the search box, which utilizes a keyword or keyword plus full-text search methodology with AND implied. The more information entered into the box helps make the search more precise. The user can also employ facets to further narrow the search once presented with a result set. The indexing and relevancy are optimized for one- or two-word titles to bring those to the top of the results.

Additionally, you can choose a default relevancy ranking based on pure relevance or elevate the items you own. In many cases, pure relevance is the best option for finding known items, because it may not be held by your library but could be available through the consortium or libraries worldwide

**Advanced Search** - The Advanced Search screen allows users to search specific field indexes such as author, title, subject, journal titles, full-text, and full text-plus-keyword. Index availability varies according to the databases selected for searching. Users can also pre-filter search results by format, date of publication and location. Users may select a group of databases or create their own custom group of databases to be searched.

From the results set, a user can refine a search with the aid of facets. These vary according to the database being searched but may include: sort order, location, full text/peer reviewed, format, database, author, publication year, language, and topic. Facets are applied across all data sources as applicable.

Expert searchers, such as library staff and researchers, can also perform command line searching from the basic search box.

### **CONTENTdm**

Yes, in CONTENTdm, all record metadata and transcript text is searchable through the simple and advanced search dialogs.

Yes, the Recollect interface is fully searchable. Recollect provides simple and advanced search options, with flexible faceting options to refine search results for the user.

### **Quartex**

Currently only asset metadata and transcripts in Quartex are searchable. However, Quartex does plan to extend the search functionality to all site content. Transcription services are available for the client to run on both OCR and AV assets. When transcribed, each transcript is indexed against the asset and searchable at the platform-level. Currently full-text search of handwritten manuscript assets which have been HTR'd is limited to in-document, keyword search (i.e. – you must identify a document in which to search full-text search; the full-text of manuscript documents cannot be searched from the platform-level). Future development will extend the HTR functionality to actual transcription, which will enable platform-level search.

Hyrax Hyku  
Yes

#### 4. Can the product link to items in member institutions' online public access catalogs (OPACs)?

##### **WorldCat Discovery**

There is no need to maintain a separate catalog with WorldCat Discovery. The interface functions as both a traditional OPAC and an advanced discovery interface. The library can create a search box limited by format and holdings to replicate a traditional catalog view; real-time availability and appropriate fulfilment options are populated automatically.

##### **CONTENTdm**

For records added to CONTENTdm, it is possible to harvest them to WorldCat and export the WorldCat links for use in an OPAC or other discovery system. If the goal is for users to discover the items in CONTENTdm, a corresponding record that points to the item in the OPAC would need to be created. This could be a "URL item" which links directly and provides associated metadata for search and discovery support.

##### **Recollect**

Yes, links to the member catalogs can be provided to the user.

##### **Quartex**

Yes, external links can be included in any of the navigation, content (static or exhibit pages), asset metadata or footer.

Hyrax Hyku  
Yes

#### 5. Can institution-level admins update OPAC links for their institution's holdings?

##### **WorldCat Discovery**

Yes. Staff can add new records to the database and change existing records, which are immediately indexed and available for searching within WorldCat Discovery. WorldCat Discovery displays library holdings information and, for items held by the library, real-time availability information on both the brief results and the detailed information page. This data also determines the appropriate request and delivery options to present to the user.

##### **CONTENTdm**

For CONTENTdm, OPAC links would be treated like any other URL. URL items in CONTENTdm can be updated by replacement. Another approach would be to include the OPAC link within the metadata of the CONTENTdm descriptive record, which can also be updated like any other metadata edit.

##### **Recollect**

Yes, editors can update the OPAC links.

In the Question and Answer section of the RFI, Montana Memory Project indicated that this question pertains more to bibliographic cataloging and ILL, which Quartex is not intended for or developed to support.

Hyrax Hyku  
Yes

6. Please describe any additional fees for web or app customization work.

### WorldCat Discovery

OCLC does not provide web customization services for WorldCat Discovery. The interface is configurable as described in item 1 above.

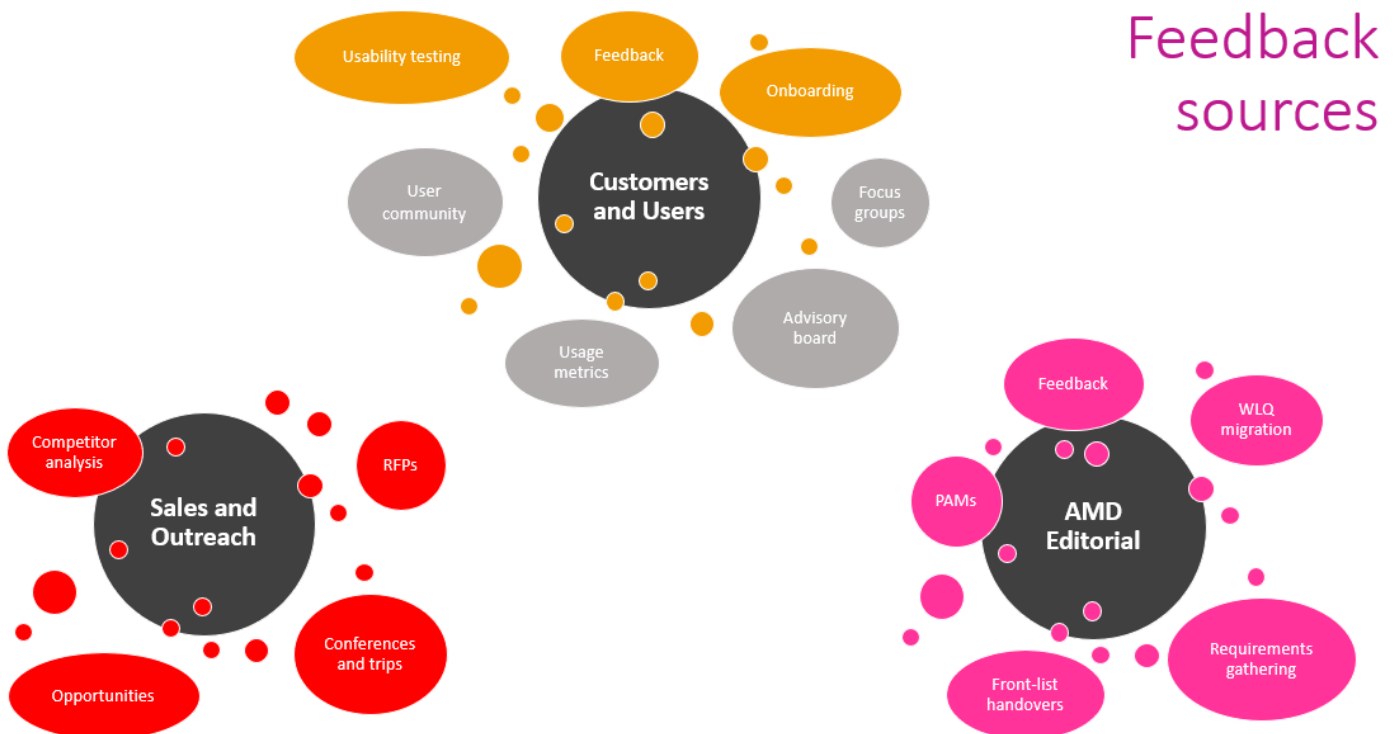
### CONTENTdm

OCLC does not provide web customization services for CONTENTdm. The interface is configurable as described in item 1 above.

### Recollect

The implementation estimate allows for initial user experience customization. Additional services can be provided on a time and materials basis.

Additional development of the Quartex platform is informed by the needs of the entire Quartex customer base. Feedback regarding development needs is collected using the feedback mechanisms indicated in the diagram below from three critical Quartex stakeholders' – current customers, potential customers, and the Adam Matthew Digital editorial staff, who are building all 2020 Adam Matthew primary-resource published collections on the Quartex platform. Any additional customization work that is specific to an individual client needs and license agreement must be negotiated during the contract process.



Hyrax Hyku  
Most customization work can be contracted at a rate of \$100/hr



## Training Requirements

1. Please describe availability of regular live and recorded virtual training that is accessible to member libraries at no cost.

For both the initial and ongoing training, staff will have unlimited, no-cost access to live and recorded online training on the use of the cataloging tools that come with all OCLC services subscriptions. The recordings of these live sessions also are made available for unlimited viewing at any time.

Training materials are accessible via the Recollect Community site. Additionally, Recollect hosts regional user group meetings to facilitate in person training and provide opportunities for site administrators to share knowledge and user tips.

As noted in the Support Requirements section, upon contract execution the Quartex Product Specialist will reach out to the Montana State Library designated point-of-contact to kick off the onboarding process. Onboarding begins with a comprehensive questionnaire outlining the various considerations and requesting details relevant to the Montana State Library's requirements for digital asset management, metadata and site configuration. This information is then used to inform the training agenda, which is planned and provided in accordance with the Montana State Library's schedule. Adam Matthew Digital proposes that all training be provided in a train-the-trainer approach so that communications are streamlined through the Montana State Library's designated points-of-contact. Quartex proposes an initial two-day onsite training for Montana State Library staff delivered by the Quartex Product Specialist. Additional remote training is available as needed, within the contracted support hours.

Hyrax Hyku  
n/a

2. Please describe availability of in-person training opportunities for member library staff within Montana.

OCLC training staff is available to schedule any on-site training staff may need to ensure they maximize their use of OCLC services. We will work with you to provide the appropriate sessions tailored to your needs.

### Recollect

The implementation estimate allows for 3 days of in person training for MSL staff. Additional training can be provided on request on a time and materials basis.

### Quartex

As noted above, in-person training is offered as part of our comprehensive onboarding process and can be scheduled at the Montana State Library's convenience and in alignment with the implementation goals and timeline.

Hyrax Hyku  
Notch8 hosts user training workshops in San Diego, and could consider virtual options.

3. Please list training topics available for this product for staff and, if applicable, end-users.

### Cataloging

Live and recorded classes cover a variety of topics for the various Cataloging tools:

- CatExpress
- Copy Cataloging with CatExpress
- Connexion Browser
- WorldCat, MARC, and Browser Basics
- Basic Searching in Connexion Browser



- Basic Editing and Record Processing
- Connexion Browser: Editing Master Records
- Advanced Bibliographic Searching
- Original Cataloging
- Connexion Client
- WorldCat, MARC, and client basics
- Basic bibliographic searching
- Basic editing and record processing
- Save files, file management, and batch processing
- Automation and customization
- Editing master records
- Advanced bibliographic searching
- Original cataloging
- Authority Control

#### WorldShare Collection Manager

- What it is and why it matters
- Fundamentals of WorldCat knowledge base collections
- Advanced editing of WorldCat knowledge base collections
- WorldCat data sync collections: Create collections, upload files, and review output
- WorldCat data sync: Processing paths for optimal outcomes
- WorldShare Record Manager
- Editing bibliographic data in WorldShare Record Manager
- Advanced editing of bibliographic data in WorldShare Record Manager
- Policies for adding original records to WorldCat
- Policies for replacing WorldCat records

#### **WorldShare ILL**

- Introduction to WorldShare Interlibrary Loan
- WorldShare Interlibrary Loan - Borrowing
- WorldShare Interlibrary Loan – Lending

#### **CONTENTdm**

Online CONTENTdm tutorials include topics such as:

- Getting Started
- Metadata
- Working with Content Types
- Importing Items and Creating Objects
- Customizing
- System Administration and User Management

Staff can utilize various CONTENTdm learning paths:

- Work with Project Client
- Work with Compound Objects
- Search, view and use collections
- Customizations to CONTENTdm website
- And many others

Available topics for online training with a dedicated trainer include:

- CONTENTdm overview
- Configuring collections
- Project Client overview
- Add, configure projects
- Add items and metadata

- Reconfigure collections, create new projects
- Compound Objects
- Maintain collections
- Website configuration tool

### Recollect

End user training is provided through help screens within the platform. Staff and collection managers are provided training in the following topics:

- oSite configuration
- oUser administration
- oContent management

### Quartex

Although customized to the needs of the individual customer, training generally follows the steps outlined in the Quartex Quick Start Guide, which include:

- Configuration of metadata fields and controlled vocabularies
- How to import assets along with existing metadata and/or OCR transcripts
- Processing tasks, like collection assignment, transcription and batch editing
- Designing a front-end using the in-platform Styles wizard
- Building static content pages, exhibits and the primary navigation to present content
- Configuration of catalog filters, metadata display, and any additional access points

### Hyrax Hyku

n/a

4. Please describe documentation and tutorials available to member library staff and administrators.

For all services, you will continue to have access to the OCLC online Community Center and Support Web site, where you can find self-support materials like documentation, FAQs, discussion forums, guides, and self-paced tutorials.

Staff and collection managers can access training materials on the Recollect Community site covering the following topics:

- oSite configuration
- oUser administration
- oContent management

### Quartex

In addition to the Quick Start Guide and in-platform Help Centre mentioned above, Quartex offers a comprehensive user manual provided and maintained through Basecamp. The Quartex development team has on its roadmap to incorporate the manual into the Quartex Help Centre. Quartex marketing staff are also working to scope out helpful video tutorials. Information about these video tutorials will be shared once they are complete.

### Hyrax Hyku

User documentation is available on the web:

<https://wiki.duraspace.org/display/hyku/User+Documentation>

## References and Qualifications

Vendors must demonstrate that they are production ready by providing a description of their experience in working with state libraries and consortia.

With all three proposed services currently being used by Montana libraries, staff and end users can seamlessly continue to leverage Cataloging, WorldShare ILL, and CONTENTdm with no need to prepare for production.

OCLC has provided the Montana State Library with Cataloging and WorldShare ILL for nearly 20 years and with CONTENTdm for 13.

Overall, we have provided cataloging and resource sharing services to 48 state libraries, of which 19 also have CONTENTdm. Similarly, 26 consortia have both cataloging and resource sharing service; of those, 5 also have CONTENTdm.

Vendors must provide three references to current contract holders of similar size and scope.

### **Statewide Cataloging and WorldShare ILL**

- **Illinois State Library**

Greg McCormick, Director 217-782-3504 [GMcCormick@ILSOS.GOV](mailto:GMcCormick@ILSOS.GOV)

**Texas State Library & Archives (TSLAC)** Mark Smith, Director and Librarian 512-463-5460  
[director.librarian@tsl.texas.gov](mailto:director.librarian@tsl.texas.gov)

- **Connecticut State Library**

Mr. Stephen Slovasky, Head, Bibliographic Information Services  
Connecticut State Library  
860-757-6546  
[stephen.slovasky@ct.gov](mailto:stephen.slovasky@ct.gov)

### **CONTENTdm**

- **Illinois State Library**

Greg McCormick, Director 217-782-3504 [gmccormick@ilsos.gov](mailto:gmccormick@ilsos.gov)

- **Connecticut State Library**

Mr. Stephen Slovasky, Head, Bibliographic Information Services  
Connecticut State Library  
860-757-6546  
[stephen.slovasky@ct.gov](mailto:stephen.slovasky@ct.gov)

- **Central New York Library Resources Council**

Mr. Ryan Perry, Digital Collections Librarian and NY Heritage Project Coordinator  
Central New York Library Resources Council  
315-446-5446  
[rperry@clrc.org](mailto:rperry@clrc.org)

Recollect currently cannot provide references to US implementations.

Australian references are:

Andrew PiperManager, Online Services  
State Library of South Australia

[Andrew.Piper@sa.gov.au](mailto:Andrew.Piper@sa.gov.au)

<https://digital.collections.slsa.sa.gov.au/>

Michael Smith  
Manager, Information Management  
City of Sydney  
[MDSmith@cityofsydney.nsw.gov.au](mailto:MDSmith@cityofsydney.nsw.gov.au)

Lyn Keily  
Special Collections Librarian  
University of Newcastle  
[lyn.keily@newcastle.edu.au](mailto:lyn.keily@newcastle.edu.au)  
<https://livinghistories.newcastle.edu.au/>

New Zealand references are:

Roger Dawson  
Acting Director and University Librarian  
HOD Research Collections  
Lincoln Universty  
[Roger.Dawson@lincoln.ac.nz](mailto:Roger.Dawson@lincoln.ac.nz)  
<https://lincoln.recollect.co.nz/>

Gabor TothLocal and NZ History Specialist  
Wellington City Libraries  
[Gabor.Toth@wcc.govt.nz](mailto:Gabor.Toth@wcc.govt.nz)  
<https://wellington.recollect.co.nz/>

Reid Perkins  
Community Heritage Co-ordinator  
Upper Hutt City Library  
[Reid.Perkins@uhcc.govt.nz](mailto:Reid.Perkins@uhcc.govt.nz)  
<https://uhcl.recollect.co.nz/>

#### Quartex

For over 30 years, Adam Matthew Digital has been harnessing the latest technologies, to reimagine primary resources to empower current and future generations to challenge, analyze and debate. Each year we do this by publishing new, relevant primary source collections that span a wide variety of topics ranging from gender and sexuality, literature, art, politics, war, business, popular culture and more. These curated collections are offered to academic institutions on a customized platform, designed by Adam Matthew Digital to maximize discoverability and drive usage to primary source content to enhance learning.

Over time, Adam Matthew Digital has become a gold standard in our industry for the quality of our resources and for technological advancements. With a keen focus on progress, we have been continuously refining and improving the means by which we deliver primary source content to end users. In 2018, we released the Quartex digital collections platform, the newest instance of our in-house platform, to provide other repositories outside of Adam Matthew Digital with an advanced, hosted solution for showcasing and publishing their own digital collections and exhibits. The Quartex platform is designed as a simple but powerful resource with functionality that requires no technical knowledge or background, and which allows customers the flexibility to establish customized workflows based on their unique needs and collections. Quartex subscribers have access to cutting-edge Handwritten Text Recognition, Optical Character Recognition, and Audio/Visual full text search services in platform to help meet accessibility requirements and maximize discovery of all digitized content types. Quartex also utilizes open access tools such as iiif to facilitate sharing and learning. The newly designed exhibits feature provides repositories with an easy-to-build and visually interesting gateway for showcasing and providing new interpretations and associations of curated digitized content from its varied

collections. The Quartex development team will continue to enhance functionality and implement the latest technologies, informed by engagement with the Quartex user community and from the Adam Matthew Digital editorial staff tasked with creating the company's next generation primary resource collections.

Since launching the Quartex platform publicly in early 2018, we have acquired a global client base consisting of seven clients, including one public library client. Each of these clients is unique and are actively building and customizing their Quartex platform to meet the needs of their research communities. While none of these clients are consortia accounts, Baylor University has several unique repositories on campus that contribute to their digital collections. Our work with Baylor and our other clients has informed the approach we have described in our application for the Montana State Library.

Montana State Library staff may reach out to the following Quartex clients that are implementing similarly sized Quartex platforms to that proposed to Montana State Library. Two of the contacts listed below, Baylor University and Sonoma County Library, are migrating off the CONTENTdm platform onto the Quartex platform and have familiarity with that process.

#### **University of Toronto, Mississauga**

Shelley Hawrychuk, Chief Librarian 905-828-5235 [shelley.hawrychuk@utoronto.ca](mailto:shelley.hawrychuk@utoronto.ca)

#### **Baylor University**

Darryl Stuhr, Associate Director, Digital Preservation Services

254-710-7356

[Darryl\\_Stuhr@baylor.edu](mailto:Darryl_Stuhr@baylor.edu)

#### **Sonoma County Library**

Geoffrey Skinner, Cataloging and Metadata Supervising Librarian

707-755-2009

[gskinner@sonomalibrary.org](mailto:gskinner@sonomalibrary.org)

Hyrax Hyku

[See Hyrax Hyku document](#)

## **PART TWO: CONTENT MANAGEMENT SYSTEM AND DIGITAL PRESERVATION**

### **Statistical Reporting Requirements**

1. Are statistical reports available for Optical Character Recognition (OCR) data, including number of pages completed per collection and across all collections?

#### **OCLC**

Total pages processed with OCR are tracked per month per user, but those totals are not saved to aggregated reports and are not separated per collection.

**Recollect**

**Yes**

#### **Quartex**

This information is available through the My Assets dashboard, which is filterable by collection, as shown in the screenshot below.

My Assets ▾ Assets Metadata Collections Configuration Processes

My Assets Dashboard What Next? >

Welcome to Quartex, your platform for publishing digital collections. This dashboard provides at-a-glance information on your usage of Quartex

Show help

Welcome Root User not you?

Only show me data for:  Clear Site analytics Help

### Digital Footprint Usage

26.11 GB of 50 GB used

53%

### OCR Usage

Rate: \$0.05 per image.

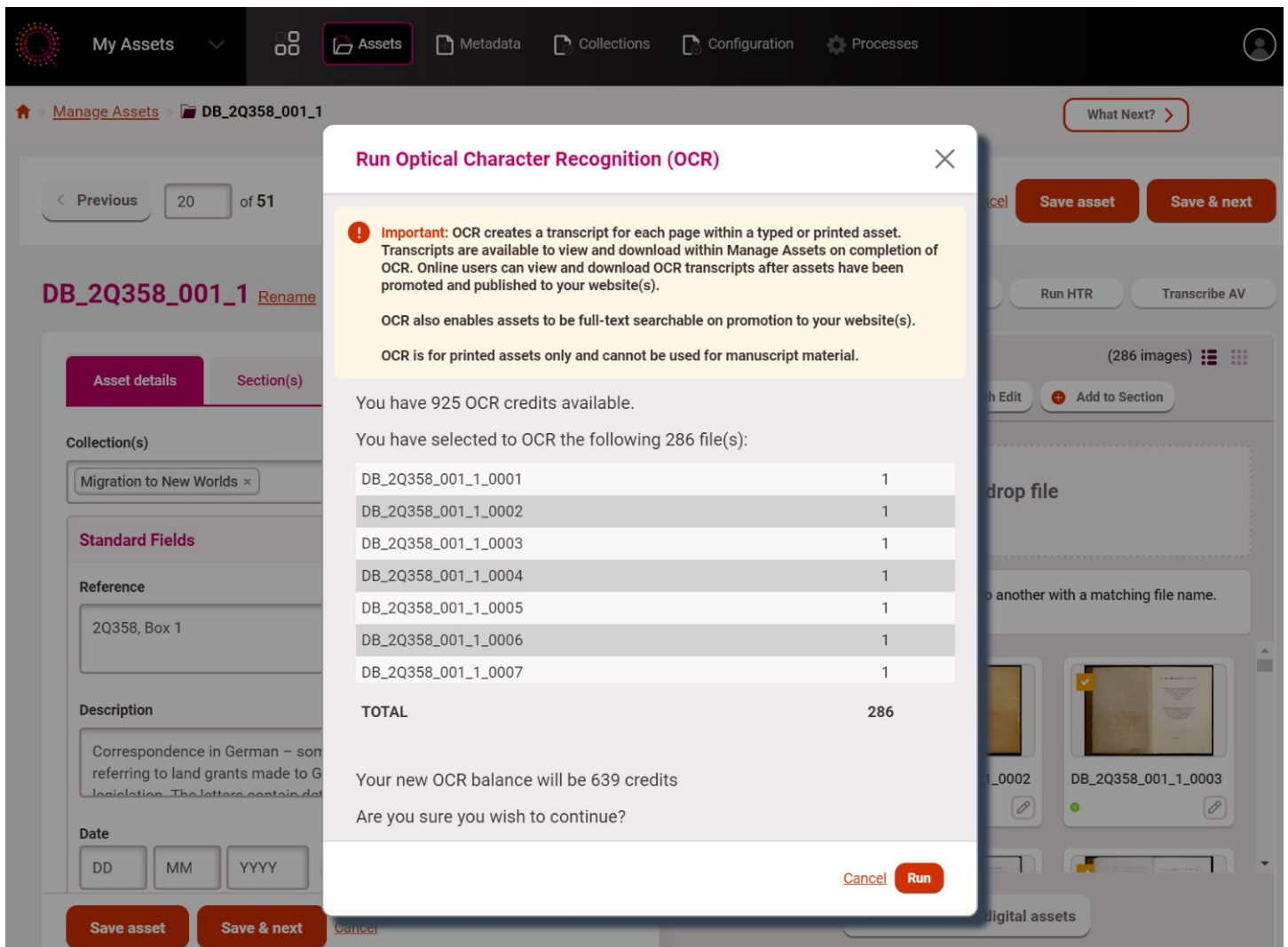
2175 of 3100 images used

70%

To buy OCR credits [log a support ticket.](#)

Collection(s)	Sites
Showing 3 of 18 <b>Sort</b> Most recently updated ▾	
<b>Socialism on Film</b>	
<a href="#">16 assets</a>	Updated 27/08/2019 04:45
<b>World War Two</b>	<span>Promoted</span>
<a href="#">6 assets</a>	Updated 11/07/2019 15:42
<b>Newberry - Collection</b>	<span>Promoted</span>
<a href="#">15 assets</a>	Updated 24/05/2019 10:59

As Montana State Library chooses to run OCR services in-platform, a modal appears each time the process is run (see screenshot below) to indicate how many OCR credits are being utilized and the remaining available credits. If the client doesn't have enough credits in the system, new credits can be purchased at any time; updated credit totals are then reflected in the My Accounts dashboard.



Hyrax Hyku  
n/a

2. Are statistical reports able to detail number of multi-part objects?

Yes, each collection provides an Item Types report that shows how many “compound objects” exist in the collection, along with the number of component digital files by format (image, PDF, audio, video, etc.).

Recollect  
Yes

In Quartex, details around the number of multi-part objects can be determined using the file count filter in Manage Assets.

Hyrax Hyku  
n/a

3. Are statistical reports able to detail number of items saved by contributor?

The ingest application has options to include automatically the username of the person contributing/uploading records. It is possible to search collections by username and/or date created or modified to generate record tallies by contributor.

Recollect

Yes

Quartex

It currently is not possible to run reports that detail the number of items saved by contributor. However, if when Montana State Library sets up its platform, it chooses to make collections specific to a contributing institution, then that information could be tallied.

Hyrax Hyku

n/a

4. Are statistical reports able to detail number of items per collection as well as in total?

Yes. Reports are available for each collection to provide item totals (also broken down by format) as well as item totals across the repository.

Recollect

Yes

Quartex

The number of items per collection and in total can be determined using the collections filter in Manage Assets.

Hyrax Hyku

n/a

5. Are statistical reports able to detail number of pages per collection as well as in total?

“Pages” and “items” are not counted as different things in the reports mentioned above. The built-in reports are based on the numbers of digital objects/files.

Recollect

Yes

Quartex

The number of pages per collection as well as in total can be determined using the file count filter in Manage Assets.

Hyrax Hyku

n/a

6. Are statistical reports able to detail number of page views per item as well as by collection?

Yes, built-in reports track views by item within each collection.

Recollect



Yes

Quartex

Montana State Library would have the option to connect a Google Analytics account to Quartex for page view tracking. The Quartex development team does have on its roadmap to develop an in-platform analytics tool. As a customer of Quartex, Montana State Library would have the option to contribute to that conversation, if desired.

Hyrax Hyku

n/a

7. Are statistical reports for usage data available by institution as well as by collection?

There is no distinct concept of “institution” built into CONTENTdm. If collections have been assigned to particular institutions, the collection-level reports could be exported and aggregated to provide institution-level statistical data.

Recollect

Yes

Quartex

Usage data available by institution as well as by collection is not currently available. However, if when Montana State Library sets up its platform, it chooses to make collections specific to a contributing institution, then that information could be tallied to determine institutional usage.

Hyrax Hyku

n/a

## Marketing Requirements

1. Please describe what kind of marketing content (electronic, print) is available to participating members as part of our contract cost, including:

- Format

PDFs regarding CONTENTdm, preservation archive, IIF are available to distribute to participating members at no additional cost. OCLC can attend state and local conferences to promote the use of the program. We can host online or in person meetings to further promote CONTENTdm and The Montana Memory Project.

- Quantity (print)

An unlimited quantity is available for electronic distribution.

- How frequently materials are produced or updated

We review our marketing materials on a regular basis and make updates to materials to align with product enhancements.

- Ability to integrate or export content with social media tools

OCLC has a strong social media presence and we frequently incorporate special collections into these outlets. Likewise, CONTENTdm provides a feature for your end users to share your digital content to their social media platforms (Twitter, Facebook, Pinterest, etc.).

- Ability to customize marketing materials with program branding and URL

Yes, we have the ability to customize marketing materials with program branding.

Recollect does not currently provide marketing content, however we would be willing to discuss these requirements and to provide estimates if required.

The Quartex marketing team will seek to support the strategic objectives of this project by making available tools and materials at launch, aiding Montana State Library and participating members in building the profile of the project and the content.

For launch, we will provide a range of digital and print tools to Montana State Library for distribution to participating members, including:

- Printed flyers, postcards, posters, and bookmarks – for distribution and physical display around participating member organizations
- Digital tools: eFlyers, social media images, and website buttons – for use via email, online, and through social media channels

The marketing team produces a range of materials for Adam Matthew’s digital resources, examples of which can be found online at <https://www.amdigital.co.uk/support/marketing-material-flyers>, and for Quartex customers, to help build the profile of their digital collections. We will work closely with the key project stakeholders to develop these materials, and to ensure that branding is treated appropriately.

We will produce a batch of 500 printed materials which will be sent to Montana State Library for dissemination among the contributing libraries; these materials will include flyers, postcards, posters, and bookmarks. After launch, we will supply the PDF material designs for the libraries to print on demand.

We will work with the key project stakeholders to collaborate on marketing for major future releases; this will include any required updates to the printed materials and using digital marketing channels to promote the content.

Any Quartex customer or site end user has the ability to easily share content through social media channels, using the icons supplied in the top right-hand corner of the front-end display.

We will also create customizable materials (postcard, bookmark) for the participating libraries to add their own branding; these will be supplied as PDF files.

In addition, the marketing team, led by the Head of Marketing, will also carry out key marketing activities for the launch of this project. The Head of Marketing will draft a press release, finalized in collaboration with the Montana State Library key project contacts, which will be distributed across our press and media list by our US publicist, who has worked in the publishing and technology industry for over 25 years. We will also share details of the project launch through our social media channels, amplified through Adam Matthew Digital and SAGE Publishing social channels. We will feature the project on our Quartex website (<https://www.quartexcollections.com>) and continue to promote content from major future releases via our marketing channels.

Hyrax Hyku  
n/a

## Technology Requirements

## Metadata

1. Is metadata customization possible at the item level? Please describe.

Yes. Metadata schema in CONTENTdm collections are fully customizable and the contents of metadata fields can include any UTF-8 text up to 128,000 bytes per field. Each field can have a controlled vocabulary assigned to it to enforce metadata consistency. Fields can be assigned either a TEXT data type or a DATE data type. TEXT fields have no constraints on what they can contain. DATE fields can only contain ISO 8601 date metadata.

Recollect provides an extremely flexible metadata environment, allowing customization at a very granular level. All customization is managed through on screen configuration with no limit to the number of metadata fields or groups of metadata fields within item types. This allows for the implementation of formal schema, as well as metadata describing items in fine detail e.g. scientific classification.

### Quartex

Metadata configuration is available at the asset-, section- and item- levels. In addition, asset-level fields can be customized per collection.

### Hyrax Hyku

n/a

2. Which metadata standards and frameworks are supported (Qualified Dublin Core, etc)?

Dublin Core and Qualified Dublin Core are built into CONTENTdm, but the underlying metadata schema is fully customizable. Dublin Core is used to map similar fields across collections to facilitate cross-repository searching and faceting. Dublin Core mapping is also used when exporting data via OAI-PMH.

Dublin core, MARC and other formal schema are supported in Recollect through metadata configuration.

Quartex allows users to catalog in any desired standard, as customers configure the fields they choose, setting labels, field types, and indicating which fields are required. Fields from three standards are configurable with one click: simple Dublin Core, MARC, and the International Standard for Archival Description General (ISAD(G)).

**Add Field Cluster** ✕

Select field cluster for cataloguing. Once you have added the fields, use Advanced options to select the vocabulary to use for each controlled vocabulary field.

Dublin Core  
 MARC 21  
 ISAD(G)

Field	Field Type	Required
Contributor	Free Text	✓
Coverage	Controlled Vocabulary	✓
Creator	Free Text	✓
Date	Date	✗
Description	Free Text	✗
Format	Controlled Vocabulary	✓
Identifier	Free Text	✓
Language	Controlled Vocabulary	✓
Publisher	Free Text	✗
Relation	Free Text	✗

[Cancel](#) [Add](#)

Hyrax Hyku  
n/a

### 3. Which controlled vocabularies are supported (Library of Congress, Dublin Core Metadata Initiative, etc)?

Controlled vocabularies can always be user-defined, either prior to loading data or as part of the data loading process by creating terms lists from existing records. CONTENTdm includes built-in separate for several vocabularies for users who do not want to create custom vocabularies: Art & Architecture Thesaurus (AAT), Canadian Subject Headings (CSH), Dublin Core Metadata Initiative Type, Getty Thesaurus of Geographic Names, Māori Subject Headings/Ngā Ūpoko Tukutuku, Medical Subject Headings (MeSH) 2013, Newspaper Genre List, Thesaurus for Graphic Materials: TGM I (subject terms), and Union List of Artist Names (ULAN).

Controlled vocabularies can be imported into Recollect and maintained by the administrators.

#### Quartex

Currently all controlled vocabularies are custom, however Quartex is exploring implementation of the following standard vocabularies: Library of Congress Subject Headings (LCSH) and two Getty vocabularies: the Art & Architecture Thesaurus (AAT) and the Thesaurus of Geographic Names (TGN).

Hyrax Hyku  
n/a

4. Can consortium administrators create customized controlled vocabularies? If so, at what levels?

Controlled vocabularies can be defined prior to loading data or as part of the data loading process (build vocabularies from existing records). Controlled vocabulary compliance is built into the record approval process and non-compliant records can either be modified or the new terms can be added to the vocabulary as part of the approval process.

Recollect

Editors can manage controlled vocabularies at a field level.

Quartex

Yes, admins and editors with special permissions can create new controlled vocabularies, which are currently all custom. Upon assignment to a particular field, the editor must also decide whether multiple terms can be selected and new values added (i.e. – “open” vs “closed.”) If a vocabulary is “open,” then new terms are flagged upon introduction – all editors can add new terms to “open” vocabularies directly through the CV page, through in-platform cataloging or via import of existing cataloging, however only editors with special permissions and admins can approve these terms for inclusion. No asset with an unapproved term will display a “Complete” status, required for publication.

The screenshot shows a modal dialog box titled "Create New Controlled Vocabulary". It features a close button (X) in the top right corner. The dialog is divided into sections: "Name" with a text input field, "Options" with a larger text area, and a warning message: "Multiple entries must be on separate lines". At the bottom right, there are two buttons: "Cancel" and "Add".

Hyrax Hyku  
n/a

5. Is collection-level creation and maintenance of controlled vocabularies for specific metadata fields available?

Yes. Controlled vocabularies are completely customizable for every field in a collection. Controlled vocabularies can also be shared across fields and collections to maintain metadata consistency across the entire repository or only within specific sub-groups of collections or fields.

Recollect

Yes

Quartex

Yes, controlled vocabularies can be applied to different fields, which can be assigned to different collections, and are available at all levels of description (asset, item and section).

### Controlled vocabulary options

Select controlled vocabulary

Themes ▼

! Visit [Controlled Vocabularies](#) to create new.

**Allow multiple entries to be selected?**  
If your field can include more than one entry, select 'Yes' to allow multiple selections.

Yes  
 No

**Allow new 'unique' entries?**  
Allows new entries to be added to the controlled vocabulary list during cataloguing or when importing new data. These will be flagged as 'new' entries on the selected controlled vocabulary list for approval or deletion.

Yes  
 No

Administrators and editors with special approval permissions are responsible for approving new entries to controlled vocabularies.

Hyrax Hyku  
n/a

6. Can contributors batch upload metadata revisions via a spreadsheet and use Open Refine or similar tool to find discrepancies?

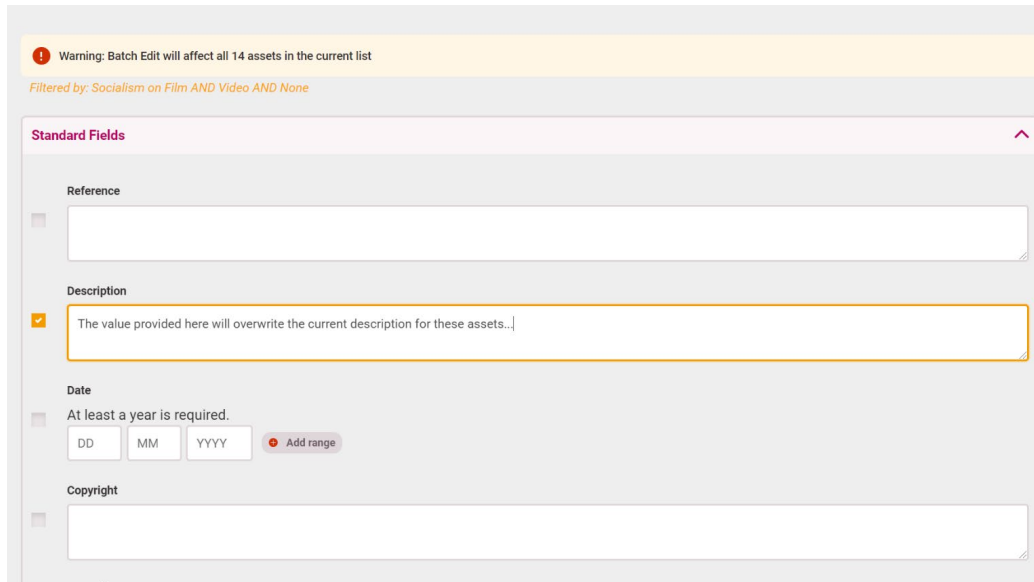
CONTENTdm provides a metadata update web service (called Catcher) for batch metadata updates. If bulk metadata changes have been made in a spreadsheet or an application like OpenRefine, they then can be formatted in the XML format supported by the Catcher web service and uploaded to CONTENTdm collections.

## Recollect

Yes

## Quartex

Yes, metadata import can be used to overwrite existing metadata, however, Quartex also offers an in-platform batch editing functionality to overwrite the values in a particular field for all selected items.



The screenshot shows a web interface for batch editing. At the top, a yellow warning banner states: "Warning: Batch Edit will affect all 14 assets in the current list". Below this, it says "Filtered by: Socialism on Film AND Video AND None". A panel titled "Standard Fields" is open, showing four fields with checkboxes:

- Reference**:  [Empty text box]
- Description**:  [The value provided here will overwrite the current description for these assets..]
- Date**:  At least a year is required. [DD] [MM] [YYYY] [Add range]
- Copyright**:  [Empty text box]

## Hyrax Hyku

n/a

### 7. Can individual library staff members customize metadata fields?

Yes, all metadata fields in CONTENTdm can be customized by authorized staff.

## Recollect

Yes if they have the right security level.

## Quartex

Editors with special permissions are capable of configuring metadata fields. All fields are custom to the particular Quartex client, however non-standard fields can differ by collection.

## Hyrax Hyku

n/a

## Software

## Hyrax Hyku

n/a to this entire section

### 1. Please describe the client and/or web portal for contributors to upload materials (stand-alone and/or web-based).

CONTENTdm has two primary methods for uploading materials: 1) browser-based “add item” web form, and 2) Windows-based Project Client application.

The browser-based form is designed only for one-at-a-time record creation and allows for upload of a digital file and provides form fields for descriptive metadata. The web-based tools also provide a way to assemble compound objects (multi-part records) from distinct single digital items. The browser-based forms will generate image derivatives (e.g. TIFF/JPEG2000), extract transcript text from PDFs and automatically generate thumbnail icons.

The standalone Windows application (Project Client) has a much greater range of functionality than the browser-based upload forms. The Project Client supports a variety of different workflows for bulk ingest of digital records. Several wizards give options to upload single items or compound objects from directories, with or without associated metadata from tab-delimited text files. Each Project Client workspace can accommodate up to 10,000 total items and has an asynchronous upload queue to send completed records to the server for approval and integration into the collection. The Project Client provides OCR services for generating full text from images as part of the bulk ingest process. It also provides a set of options for automatic generation of metadata based on properties of the digital file (e.g., image height/width, image EXIF/IPTC tags, PDF embedded metadata, file size and format, username, number of pages, and many other format-specific values).

The Project Client user interface is a spreadsheet that supports bulk editing options like “fill down” and “fill all” to support duplicating metadata to related records. This spreadsheet view also flags any records that contain metadata that does not comply with established controlled vocabularies and warns when required fields are missing metadata. The Project Client provides advanced options for customizing record thumbnails (if auto-generated thumbnails are not wanted). Additional options include the quality level for the automatically created “print PDF” files, support for custom XSL for EAD Finding Aids, compression options for JPEG/JPEG2000 derivatives, and optional creation of watermarks and brands to protect images.

## Recollect

Contributors can contribute materials through their browser.

### Quartex

Quartex clients can upload assets and/or existing transcripts using FTP or a desktop widget referred to as the Quartex “Uploader,” which provides a more efficient, speedier and stable ingestion mechanism, which enables you to import thousands of objects at once, including compound objects. The security of the Uploader is ensured through delivery via Transport Layer Security (TLS). Uploader is available for both Mac and Windows environments, and requires a separate login process, similar to the staff interface. Note: This is the only piece of code that must be installed to use this cloud-based platform, and there is no limitation on the number of machine installations of this widget.

## 2. Is there a size limit for collections or items?

There is no specific size limit for the number of items in collections, but certain processes will get slower the larger a collection gets. For example, once a collection contains several million records, the index process can take many hours to complete. For individual items, they can have up to 125 different metadata fields, and each metadata field can contain up to 128,000 bytes of text.

## Recollect

There is no size limit to collections. Individual items are limited to 2GB in size.

### Quartex

There is no limit on the number of collections that can be created. Items are limited to the size of the storage required (i.e. – “digital footprint”) that they have subscribed to in their license agreement.

## 3. Is there a limit to the number of administrators or staff users? Please describe.



There is no specific limit on the number of administrators.

Recollect

There are no limits.

Users who are able to upload and edit content into the administrative side of the Quartex platform fall into three User Subscription categories, all of which require a sign-in authentication:

Administrator: full access;

Editor: cataloguing and collection curation;

Reader: search and access only.

Only Administrators and specified Editors have permissions to import, edit or delete assets. These accounts are maintained through the User Manager module by the customer's admin. The number of User Subscriptions proposed for Montana State Library is 5 administrators level users and 50 editor level users and 50 reader level users. Additional user Subscriptions may be purchased for \$1,000 for a block of Authorized Users comprising: 1 Administrator, 5 Editors and 25 Readers.

4. Does the software allow for both batch and individual asset loading?

Yes, the Project Client supports several different workflows for adding assets in batches by directory and with an optional tab-delimited text file for descriptive metadata.

Recollect

Yes –individual, batch and bulk.

Quartex

Yes, individual assets can be uploaded from Manage Assets or via FTP or the Uploader. Individual or compound assets can be added in batch via FTP or Uploader

5. Does the software allow for movement and sharing of objects between collections?

All records have a single home administrative collection and cannot be shared simultaneously by more than one collection. Users that have wanted to share objects across collections have typically defined virtual "sub-collections" using a metadata field and created custom landing pages or search pages to give these sub-collections distinct identity. Using metadata to define sub-collections also works well with the integrated search facet features of CONTENTdm.

Recollect

Yes –an item can belong to an unlimited number of collections.

Quartex

Objects are assigned (or tagged) for collections, rather than located in a folder particular to a collection. As such, objects can be assigned to multiple collections with no additional expense or need to manage multiple instances.

6. Please describe how vendor provides support in transferring files without loss of quality.

The quality of digital files added to CONTENTdm is determined by the user at the time of ingest. For images, the ingest process can be set to create lossless JPEG2000 files or standard JPEG/JPEG2000 files that do include some compression. For PDF files and audio/video, the original file is preserved through the process and all original quality is retained.

Recollect

Files are transferred to a secure AWS S3 bucket by administrators using whichever secure file transfer protocol(SFTP)tools e.g. Filezilla,Cyberduck, Transmit, etc.

Quartex

Original files can be ingested via direct upload or FTP, either individually or in batch. Original files are always backed up on upload. Delivery of images to the end-user through tiling allows deep zoom functionality offering a pixel perfect facsimile of the uploaded image.

7. Are administrators able to set permissions on image downloads per individual contributor requirements?

OCLC

Download permissions can be set for each collection within CONTENTdm by administrators. As long as the contributor can control the settings for the collection to which they are adding records, they can set permissions to their requirements.

Recollect

Yes

Quartex

Image download from the front-end by end-users is configurable (enable/disable site-wide) by site.

**Metadata and Download Options**

- Display IIIF information for all assets
- Display Image Details for all assets
- Display Section Details for all assets
- Enable download of Document Metadata for all assets
- Enable download of document images and AV files for all assets
- Enable display and download of Transcripts (where available) for all assets

Save

Download formats include PDF, PNG and JPG for all images in addition to the original format in which the asset was supplied (AV assets are only available in their original format).

**Download** [X]

Select what you would like to download. If choosing to download an image, please select the file format you wish to download.

- Current Image
- Current Transcript
- Document Metadata

PDF [v]

- PDF
- JPG
- PNG
- Original

Close Download

8. Can content contributors upload mixed media multi-part objects?

Yes, compound objects (multi-part objects) in CONTENTdm can be composed of any file types, whether image, PDF, audio, video, or other digital file formats.

Recollect

Yes

Yes, Quartex can accommodate complex compound objects (i.e. – assets composed of multiple items, which can be of different content types).

9. Please describe available integrated Optical Character Recognition (OCR) functionality.

The CONTENTdm Project Client has a built-in OCR engine licensed from ABBYY FineReader. This OCR process can optionally be enabled during all ingests in the Project Client, whether single item or bulk processing. OCR services will only be run with image files. The text extracted by the OCR process is placed into a designated transcript field and is available for full-text searching after the record has been uploaded and approved for the collection in question.

Recollect utilizes Tesseract for automated OCR processing of documents.

Quartex features in-platform OCR processing, which produces a transcript that can be edited or exported. Transcripts are automatically associated with and indexed against the asset to enable full-text searchability. A back-end site configuration option is available to suppress transcripts from front-end display and make these unavailable for download by end-users, however assets still benefit from this content being indexed against the object for full-text searchability. Customers may choose to do this if they have desire to publish OCR but lack the time and staff to edit any inaccuracies.

In addition to OCR, which can be run on print content, Quartex is also the only platform on the market that offers Handwritten Text Recognition (HTR) which can be applied to handwritten manuscript content. Currently, HTR utilizes Artificial Intelligence to search the image for any search terms applied at the asset level. This technology does not currently produce a transcript output but is on the Quartex roadmap. Once the transcript is available, all handwritten manuscript content on which HTR has been applied will also be discoverable at the platform level.

10. Is there a limit to the number of OCR scans per license?

For a single OCR license, the default is a limit of 10,000 page scans per month. One such license is included with every CONTENTdm subscription, and additional monthly licenses can be added on with separate purchase. If the 10,000-item limit is too low, libraries can purchase OCR licenses with a higher monthly limit separately.

Recollect

No

Quartex

OCR and HTR as described above can be run by the client at their discretion. Both OCR and HTR functionality is billed per page using credits which can be bought in bulk and are tracked within the My Assets dashboard. In addition to the bulk credit rates, during the migration year, clients also receive a 40% discount on the purchase of any OCR/HTR/or AV full text search service credits. Credits never expire and new credits may be purchased at any time.

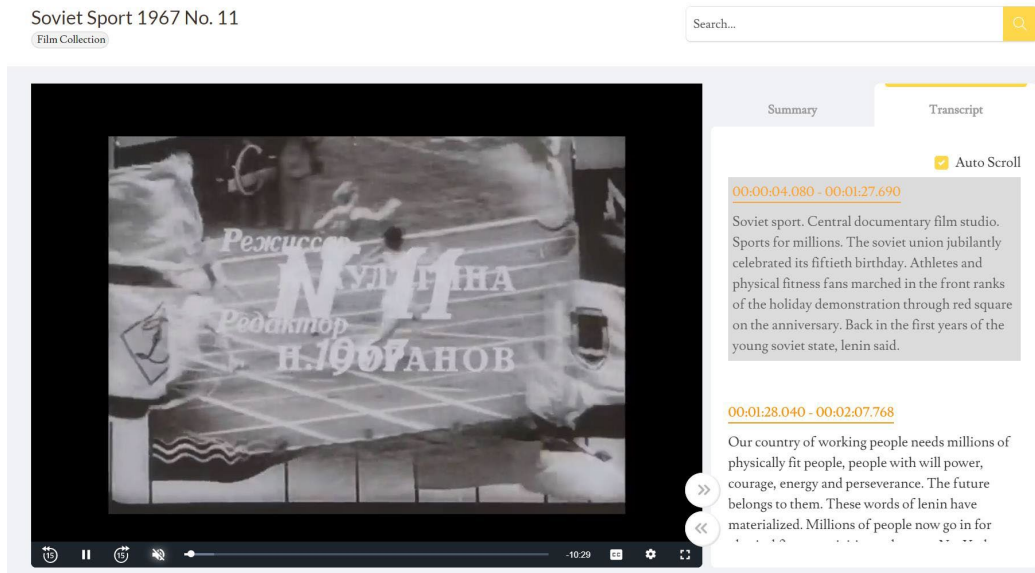
11. Please describe available integrated transcription of video and audio assets.

There is no support to automatic generation of transcripts from video or audio files, but transcripts can be supplied during the ingest process much as they can be for image and PDF content. These transcripts are treated as full text for indexing purposes and are displayed in a separate Transcript section of the item view page in the end user interface.

At this stage Recollect does not support automated transcription of video and audio assets, however this is on the product development roadmap.

#### Quartex

Audio and video (AV) assets can be transcribed using a similar one-click process as OCR and HTR. This process yields a time-coded transcript which facilitates full-text searchability and navigation by segment (as enabled by the time coding). Please see image below for an example. In addition, this single process also adds closed captioning. Currently, it is not possible to edit AV transcripts, but is on the Quartex roadmap and should be completed in 2020.



#### 12. Please describe available video captioning or captioning support.

There is no direct support for integrated captioning. If optional captions are required, the best option is to use an external video streaming service and use CONTENTdm's advanced customization features to embed the video inline. There is already a cookbook recipe available to accomplish this out of the box. The captions could then also be added to the CONTENTdm record to support full-text searching.

Recollect supports the display but not the creation of captioning. Recollect does provide for content tagging (indexing of audio and video files) to increase discoverability.

#### Quartex

As noted above, closed captioning is added automatically as a part of the AV transcription process, which front-end users can then turn on in the AV player.

#### 13. Please describe integrated transcoding and media conversion.

There is no direct support for transcoding video or audio files. If transcoding is required, the best option is to use an external video streaming service and use CONTENTdm's cookbook recipe to embed the external video or audio inline.

The following file types can be ingested into Recollect and will be automatically transcoded for native display when necessary:

Image Files: JPEG, TIFF, PNG, BMP

Document Files:PDF

Video Files:MPEG2, MPEG4, WEBM, AVI, MOV, MKV, WMV

Audio Files:MP3, WAV, OGG

Recollect automatically creates derivative access versions in the following formats when required:

Images: JPEG

Audio: MP3

Video: MP4 & WebM

MS Word and MS Excel files will be converted to PDF for native display, with the original file stored as an attachment. Other digital file types ingested into Recollect will be stored as attachments within the system.

Quartex

AV assets are initially transcoded upon import to enable playing in the staff interface for cataloging and/or review purposes. Upon publication, assets are full transcoded for front-end display.

14. Please describe whether content and metadata at the item level and/or the collection level can be edited after it has been uploaded.

Yes, both the browser-based web form and the Project Client application support editing record metadata at any time. The Project Client provides a search interface to fetch copies of records from the server and place them into the project spreadsheet. Metadata can be edited within that spreadsheet (either field by field or using “fill down”, find and replace, etc.). If records need their associated digital file updated, library staff can do so one file at a time or in bulk using the replacement features in the Project Client.

Recollect

Yes, with the appropriate access permissions

Quartex

Static content and metadata can be edited and re-published at any level.

15. Can metadata be edited in batch? Please describe.

As described above, metadata can be edited in bulk in the Project Client’s spreadsheet view using “fill up/down/all” options or find and replace across the spreadsheet. The search feature in the Project Client lets you fetch only those records that you wish to change. For larger-scale metadata updates, the best option is to use the Catcher web service. This web service supports modification of any metadata through XML files. Data modified by OpenRefine can be exported and modified for processing by Catcher.

Recollect

Common metadata can be edited in batch for a group of items. Alternatively the metadata for a range of items can be exported to a spreadsheet where changes can be made then the changes uploaded to Recollect.

Quartex

Yes, metadata can be overwritten upon import or batch edited in-platform.

16. Does the product provide stable item-level URLs?

Item-level URLs are as stable as the base URL of the repository. All item URLs have been preserved in CONTENTdm since the “Reference URL” functionality was first added in 2005. While the user-facing URL has changed through time, all forms of those URLs are handled and properly redirected.

Yes –Recollect uses internally created persistent URLs.

Quartex

Yes, item-level URLs are generated in the back-end. These are employed and made available to end-users through the My Account function, which allows end-users to create an individual account, facilitating bookmarking of assets or individual images, across any Quartex-published website to which the end-user has access.

17. Can any aspect of the metadata or the digital object be edited without that change resulting in a different URL for the item-level record?

Yes, virtually all modifications to the digital objects will not change the URLs. You can exchange the associated digital file(s) and preserve the original URL. You can make metadata edits and preserve the original URL. For multi-page records, you can add, remove, or re-arrange pages and the parent record URL is unchanged.

Recollect

Yes

Quartex

Yes, any aspect of the metadata or the digital object can be editing without impacting the URLs.

18. Does the product allow for Open Archives Initiative (OAI) aggregation from other sources?

CONTENTdm can serve as an OAI-PMH repository to provide metadata records to external aggregators. CONTENTdm does not support harvesting metadata from external OAI-PMH repositories.

Recollect

Yes

Quartex

Yes, Quartex enables harvesting from or sharing of metadata mapped to simple Dublin Core via OAI-PMH, which can allow customers to routinely ingest cataloging from another system such as ArchivesSpace.

19. Does the product allow for OAI harvesting?

Each collection in CONTENTdm can optionally have OAI-PMH functionality enabled. The resulting harvest will be in Dublin Core format based on how any custom metadata fields have been mapped to DC elements in the CONTENTdm Administration staff portal.

Yes –Recollect provides an OAI-PMH API.

Quartex

Yes, as noted above, the “Expose” functionality enables harvesting by aggregators, such as DPLA hubs.

20. Does the product provide a secure storage environment for long-term preservation of master files?

OCLC provides a separate subscription service for digital preservation. This service supports ingest and preservation of any SIP (submission information package). The SIP is automatically checked for viruses on ingest, has checksums generated for long-term fixity checks, and is stored in OCLC’s data centers as well as off-site redundant cold storage (not directly connected to a live data center). The CONTENTdm Project Client has optional features to create a local package of digital masters that then can be used to generate the SIP for upload to the digital preservation service.

Recollect

Yes

Quartex

Yes, Quartex provides a secure, long-term storage environment. Storage is cloud-based and geographically distributed using Amazon S3 buckets – with initial and routine integrity checks to ensure fixity.

21. Please describe any fees associated with access to and dissemination of storage files.

Storage files can be accessed individually at any time at no cost. If you wish to make a bulk transfer of a large amount of data (where individual access is not realistic), OCLC charges a fee to copy the files to physical media and send them via registered mail, or to create an aggregation for direct download. The fee schedule depends on the amount of data and can be provided on request.

Recollect

These are incorporated into the subscription.

Quartex

There are no additional fees to access or disseminate storage of any asset, access or master.

22. Please describe available transition assistance to migrate content if contract is terminated.

Content can be exported from the system as long as the subscription is maintained. In advance of any contract termination, we recommend using the export tools to prepare any metadata exports in the formats that are desired. Once the contract is terminated, we will copy any and all associated digital content to physical media and send via registered mail (if requested). If metadata needs to be cross-walked to other formats for ingest to another system, we can provide technical support to transform the data and advice on how to use CONTENTdm APIs to generate metadata in other formats.

Recollect provides transition assistance on a time and materials basis.

Quartex

All metadata is exportable from Quartex via the staff interface, in CSV format, in bulk or by collection, or selected assets. Assets are available for individual download from the staff interface. If the contract is terminated, Quartex offers a bulk extraction through a request process to our development team.

## End-User Interface

Hyrax Hyku

n/a to this entire section

1. Can end-users apply advanced search filters and/or facets to narrow their search? Please describe Search and Advanced search capabilities.

Yes, search results will have optional facets displayed for fields specified by the collection owners. These facet fields serve as filters to refine search results dynamically for end users. CONTENTdm's Advanced Search page supports field-specific searches, all fields searches, and date searches (before, on, after, range). Every search can either be All of the Words (AND), Any of the Words (OR), Exact Phrase, or None of the Words (NOT). These Boolean modes can be used in

conjunction with one another (e.g., search for the exact phrase “Montana Historical Society” in the Contributing Institution field AND “photographs OR documents” in the Genre field).

Recollect enables searches on titles, metadata and OCR content using Boolean terms, exact match, and full text search. Metadata fields can be set to be searchable, displayed in search results or act as facets to refine searches.

#### Quartex

By default, a keyword search displays results in order of relevancy. Upon running this type of search, a filter displays alongside results that allows users to show either metadata-only or full-text results.

Customers can configure various other aspects of the catalog page including the default value by which results are sorted when users arrive via browsing, as well as the number of records shown by default and whether results are presented as a list or in a gallery-style format.

End-users can also apply facets and filters to narrow their searches. This is configurable by the Montana State Library administrators. There is no limit to the number of filters. Filters can include file format, date range, collection and any controlled vocabulary configured in My Assets.

Search categories provides the means for end-users to browse and filter using multiple terms from selected controlled vocabularies. This content block is ideal for enabling search queries using controlled vocabularies that contain large numbers of terms and aren't used as search filters on the Documents List page.

Advanced search is also a search option. Every Quartex site will contain a default Advanced search page. Search filters configured to display on the Documents list page will also display on the Advanced search page.

### 2. Is content searchable through metadata and full-text searches?

Yes. All text added to records, whether descriptive metadata or full-text transcript, is searchable through the end-user interface.

#### Recollect

Yes

#### Quartex

End-users will be able to search all assets/records via metadata. The full text of assets is searchable if a full-text search process (OCR, HTR or AV Transcription) has been applied to that asset by Montana State Library administrators.

### 3. Please describe end-user's ability to create, save, export, and share lists of selected items.

The current version of CONTENTdm does not support creation, export, and sharing of end-user lists; however, this feature is on our short-term roadmap. We expect to add support for saved end-user lists in early 2020.

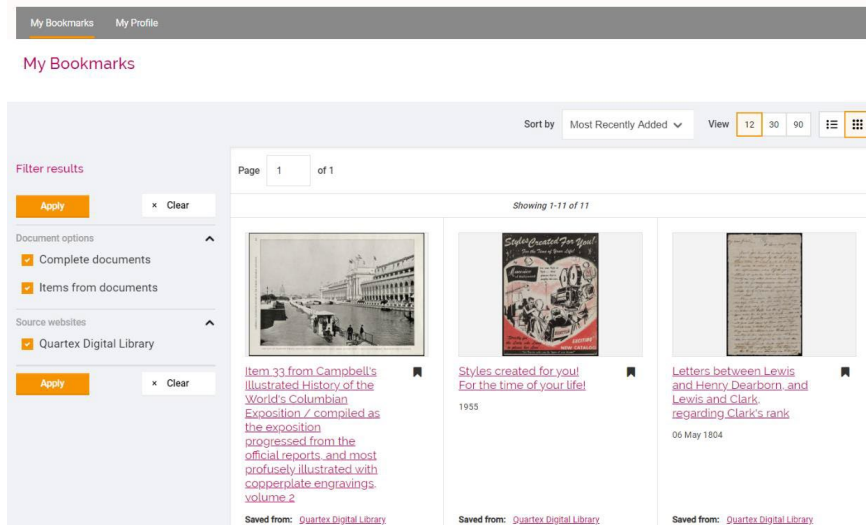
Recollect provides a My Collection feature allowing users to save items to their collection, then to organize the collection into sub-collections. Sub/Collections can be exported or shared by email or social media.

#### Quartex

End users can create an account to bookmark assets or items within assets (see example image below). Planned enhancements to this functionality will enable users to save searches.



## My Account



#### 4. Please describe image view and thumbnail resolution and formats used (TIFF, JPEG).

Image content uploaded to CONTENTdm typically is stored in a web-friendly JPEG2000 format. For end users, any image downloads will be converted to the more user-friendly standard JPEG format. If direct access to TIFF masters is desired for end users, it is also possible to support this through the optional Archival File Manager functionality.

Recollect generates thumbnails, full size and webmaster jpegs from original files for display and download purposes.

#### Quartex

Thumbnails and tiles are both auto-generated within the platform upon upload of images. Tiles are in full resolution to replicate the resolution of the original uploaded image, without compromising quality in zoom and full-screen views. Thumbnails employ a range of resolutions according to relevant position in the front-end site and the relevant aspect ratio.

#### 5. Can end-users zoom and pan without losing image quality?

Yes, when images are stored in CONTENTdm as JPEG2000 (optionally as lossless JPEG2000) the end user will be able to pan and zoom up to the entire full resolution of the original image.

Yes –Recollect provides a feature to show the full size image at 100% for users to explore the images in fine detail.

#### Quartex

Yes, using Quartex's default image viewer, end users can zoom in and pan, a deep zoom functionality enabled via Open Seadragon. Image quality is not compromised.

#### 6. Can end-users download images and choose from options for file size and format, with permission from contributor?

CONTENTdm provides collection administrators with options for several different quality levels for image downloads, ranging from 250x250 pixels up to the full-size of the stored original. CONTENTdm only supports download of images in

standard JPEG format. CONTENTdm also includes support for a downloadable PDF version of multi-page records (e.g. documents, letters).

Recollect  
Yes

Quartex

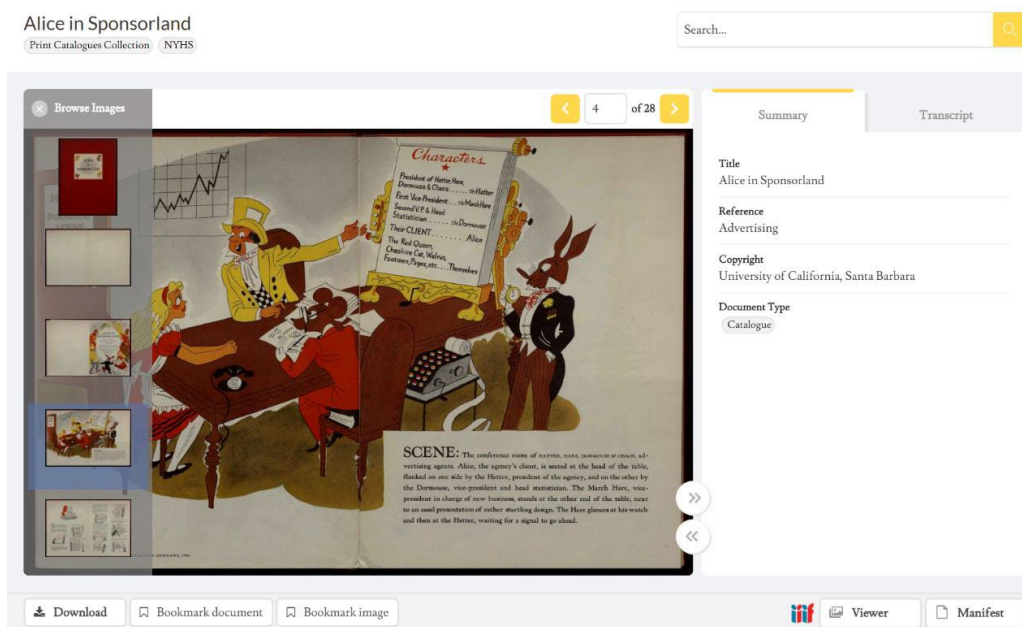
Montana State Library staff can enable or disable options to download images sitewide from the front-end. As noted in response to Software Section Quartex #7, download formats include PDF, PNG and JPG for all images in addition to the original format in which the asset was supplied (AV assets are only available in their original format).

### 7. Can end-users browse pages of a multi-page object?

Yes, multi-page objects have a thumbnail navigation panel to step between individual pages. The multi-page object viewers also have next page/previous page UI to support sequential browsing/reading modes.

Recollect  
Yes

Yes, both the default image viewer and the optional IIIF Mirador viewer enable end-users to browse thumbnails and page through compound objects by individual image (see example below).



### 8. Can end-users contribute mediated comments on items?

There is no built-in support for end-user comments in CONTENTdm. A few current CONTENTdm users have added support for third-party commenting web services (e.g. Disqus) using CONTENTdm's rich support for advanced customizations.

Recollect

Yes -the administrator set permissions to add tags to images, geotags to items, comments and allow for suggested edits to metadata.

PART THREE: BIBLIOGRAPHIC CATALOGING

**Statistical Reporting Requirements**

1. Are statistical reports available for withdrawals data?

This data is not available through the OCLC Cataloging reports. Our WorldShare Circulation service provides such reports, but that is not part of this RFI.

2. Are statistical reports available for bibliographic holdings data?

Yes. WorldShare Collection Manager provides WorldCat Holdings reports, which track when an institution's symbol has been added to or removed from records in WorldCat. There are two types of WorldCat Holdings reports:

- The WorldCat Holdings report, which is sent daily, detailing a library's most recent changes.
- The WorldCat Monthly Holdings report, which is sent out monthly to provide a monthly summary of activity.

Report	General information included in the report	Columns included in the report	Notes
WorldCat Holdings	Reporting Period Institution Name Institution Symbol Total number of records	Provider Collection Name Title ISBN/ISSN OCLC Number Action (set or delete)	When a holding in WorldCat is deleted, the WorldCat Holdings report: • Will not include a value for <b>Provider</b> or <b>Collection Name</b> • Will have <b>delete</b> in the <b>Action</b> column
WorldCat Monthly Holdings	Reporting Period Institution Name Institution Symbol Total WorldCat Holdings	Provider Collection Name Set Delete	

3. Are statistical reports available for the number of original records produced, edited, and deleted?

Yes.

WorldShare Record Manager tracks cataloger activity across bibliographic, authority, and local holdings records, and these statistics are captured in reports in the Analytics tab.

For library collections and holdings represented in the knowledge base, WorldShare Collection Manager provides a set of reports. WorldShare Collection Manager's Record reports contain information about records you output from Collection Manager. They are separated into reports about deleted records, new records, and updated records. Each report includes details about the associated files of records (deleted, new, and updated files of records).

Report	General information included in the report	Columns included in the report	Notes
--------	--	--------------------------------	-------

<b>Deleted Records</b>	Reporting Period Institution Name Institution Symbol Total number of records	Provider Collection Name Title ISBN/ISSN OCLC Number File Name Multiple occurrence	The Delete Records Report displays titles that have been deleted from your collections.
<b>New Records</b>	Reporting Period Institution Name Institution Symbol	Provider Collection Name Title ISBN/ISSN OCLC Number Record not delivered* File Name Multiple occurrence	<p>The New Records Report displays titles that have been added to your collections.</p> <p>*The <b>Record not delivered</b> column is especially of interest to libraries that changed a collection-level record delivery setting <b>WorldCat Holdings to No</b> so that Collection Manager does not deliver records for items you already held in WorldCat. The items not delivered as New records will appear in the report with the word <b>New</b> in the <b>Records not delivered</b> column. You can use the information for your statistics.</p>
<b>Monthly Records</b>	Reporting Period Institution Name Institution Symbol	Provider Collection Name New Updates Deletes	<p>The Monthly Records Report provides a monthly summary of activity. It shows the number of records output for each provider, collection, and if records were new, updates, or deletes. It also includes the total number of records delivered.</p> <p>Record delivery is counted by a combination of OCLC number, library symbol, and date. The example below would represent one Update, one New, and one Delete record:</p>

## Updated Records

Reporting Period  
Institution Name

Provider  
Collection Name  
Title

Institution Symbol

ISBN/ISSN  
OCLC Number  
File Name  
Update Reason  
Action  
Multiple occurrence

OSU OCLC#1 Provider 1  
Collection A New  
OSU OCLC#1 Provider 2  
Collection B Update  
OSU OCLC#1 Provider 3  
Collection C Delete

The Updated Records Report displays titles in your collection that have been updated and lists why the record was updated. See Reasons for updated records for more information.

### Update Reason

Updated Record Reports contain an Update Reason column. If you select to receive Update Records reports, the content of the reports will depend on the settings you choose in **Institution Settings > MARC Records > WorldCat Updates** as follows:

If you selected to receive WorldCat update records:

- Details about what was enhanced in the WorldCat master record / what triggered output of an updated record will be included in your report.

If you did not select to receive WorldCat update records (you selected None):

- Details about enhancements to the WorldCat master record will not be included in your report. However, you will receive an updated record when an OCLC control number (an OCLC number) changes.

Consider selecting the Updated Records report to ensure you are notified about OCLC number merges.

**Action**

The **Action** column can have the value New, Deleted, or Updated.

A report representing a collection that had a DDA title triggered for purchase could appear as follows: **Action**  
NEW

DELETED

UPDATED

4. Please describe any available consortium-level collection analysis functionality.

OCLC provides a variety of consortium-level reports:

- **Summary Report** - The Group Bibliographic Record Processing Summary report displays a summary of bibliographic records that were matched to records in WorldCat. It also includes a breakout table of records matched for symbols under a group.
- **Count of New and Removed Group Titles** – This report provides the combined count of new and removed titles as well as the net change in title holdings activity for the group by Month and Year.
- **Count of New and Removed Group Titles interface** – This report provides the combined count of new and removed titles as well as the net change in title holdings activity for the group by Month and Year.
- **Group Cataloging Data Last Refreshed** – This report displays when group data was last refreshed. It provides information about the reports affected, how often the data is refreshed, and the date last refreshed. You can use this report to see when the cataloging data was last updated.

5. Please describe any available group print management functionality.

OCLC's GreenGlass software is a Web-based tool to help you manage and share your libraries' print monograph collections carefully and efficiently through visualization and interaction. It works with all major ILSs and enables you to define your own criteria for retention and deselection.

GreenGlass includes group functionality that employs visualizations and modeling tools that will allow your libraries to understand their shared collection with respect to overlap, subject dispersion, and usage. GreenGlass gives you the ability to experiment with various retention scenarios, estimate the impact on each library, and commit to specific retention agreements, with confidence in and comprehension of the outcome.

GreenGlass group functionality employs query tools and item lists that allow individual libraries to protect the right books, and thereby share responsibility for the collective collection. Through this analysis, participating libraries can downsize print monographs collections, knowing that long-term access to the content has been assured.

## Technology Requirements

1. Please describe how reclamation (scan/delete; keeping collection synchronized for ILL and discovery) services are scheduled for consortium and any additional costs associated with this service.

**Reclamation Process** – As your libraries currently utilize OCLC Cataloging, a reclamation process would only be necessary if libraries have not consistently maintained them and cannot easily isolate only the records that need to be updated. If needed, this type of collection would bring your holdings up to date.

A reclamation matches your records in WorldCat to set (add) holdings; timestamp them; and then cancels (deletes) holdings on records that were set earlier than the time of the data sync processing transaction.

The steps in this process are summarized below:

- You send all of your library's records. As they are matched in WorldCat and holdings are set for items you hold, the current date is "stamped" on each record.
- After data sync processing is complete, OCLC runs a Scan/Delete to remove your holdings from records with a date stamp earlier than the date of the data sync processing transaction (typically the date when you extracted your records for submittal to OCLC).
- Before performing a scan/delete, Data Sync services would contact you to confirm the date on which canceling holdings will be based. You must approve the date before OCLC will run the scan/delete.
- Holdings set after the date of the scan/delete are retained in WorldCat. Therefore, you can continue online cataloging while your records are processed. OCLC recommends, however, that you stop deleting holdings until the reclamation is complete.

By default, scan/deletes are processed to skip any holding set on a record that has a local holdings record (LHR) attached. The LHR itself will remain, and the holding will remain set on the record, regardless of date stamp. However, you can request to remove the LHR and related holding.

This is a one-time collection that includes a scan/delete process. Before a scan/delete can start, all of your knowledge base holdings must be reset.

**Cost** - This would be performed for a fee, given the custom work involved in the processing.

2. Does the product allow for establishing a shared login for consortium configuration?

Administrative settings for WorldShare Interlibrary Loan and Record Manager are maintained in the OCLC System Configuration interface. There, staff can set your interlibrary loan options, print settings, borrower and lender constant data, custom holdings groups, direct request profiles, and purchase options.

OCLC also in System Configuration maintains libraries' codes (including defaults) for branch locations/shelving locations. These affect local holding record workflows across multiple applications, including Record Manager. Permissions and access for Cataloging features, including Record Manager, are maintained with a system of "roles" that Library System Administrators assign to and manage for their staff.

3. Is a web-based cataloging utility available?

Yes. Montana libraries currently have several web-based OCLC Cataloging tools available, all providing direct, online access to WorldCat for exporting, updating, and adding unique records:

- **Connexion Browser** – Connexion provides an intuitive Web-based interface that helps staff create and edit high-quality bibliographic and authority records and then share them with the entire OCLC cooperative. Despite its user-friendly interface, it provides a robust set of tools and services with advanced features to provide unparalleled flexibility for libraries.
- **WorldShare Record Manager** - WorldShare Record Manager allows library staff to create new and enrich existing items in WorldCat with efficient, record-at-a-time metadata management for physical and electronic materials using either a MARC 21 editor or a Text View editor. Plus, with Record Manager, you can set and delete WorldCat holdings and export bibliographic records.
- **WorldShare Collection Manager** - WorldShare Collection Manager streamlines electronic and print workflows, which saves staff time and improves your catalog, so all your resources are easier for your users, other libraries and people around the world to find, request and access.

4. Please describe your database including size, structure, and features. Please list the number of full unique bibliographic records in your database.

Montana libraries help OCLC and libraries around the world maintain WorldCat, the world’s most comprehensive bibliographic metadata creation and management service, including over 461 million bibliographic records. WorldCat consists of three components: a bibliographic catalog, a knowledge base, and a registry for library information.

- **Bibliographic Catalog** - The WorldCat bibliographic catalog includes everything available to users in the library. Beyond books and print journals, the catalog of physical materials includes DVDs, historic photos, video games, musical scores, newspapers, web pages, and many other standard items.

As OCLC is a cooperative, WorldCat and the WorldCat knowledge base are the only vendor-neutral collection of records, representing over 480 languages. Worth noting as well is that all records added to WorldCat are immediately indexed and available for discovery and download, minimizing original cataloging and the introduction of intentional duplicates to the database.

The image below highlights the extraordinary level of content and activity.

**Vital statistics**

**WorldCat growth**

Number of bibliographic records  
**461,523,756** (as of June 2019)

Number of holdings  
**2,838,140,184** (as of June 2019)



**WorldCat vital statistics**

**WorldCat knowledge base** - The WorldCat knowledge base has over 51 million records and 22,00 content collections from nearly 6,800 providers. An OCLC team manages worldwide publisher/provider partnerships to continue growing the knowledge base for our worldwide libraries.



The knowledge base connects library users to the electronic content provided by their library. It combines data about a library's e-resources with linking features that make the collections easier to find, share, manage and use. Like data in the WorldCat bibliographic catalog, knowledge base data are not tied to a particular application, so libraries can streamline electronic content workflows across multiple systems.

The WorldCat knowledge base's cooperatively maintained collections continue to grow with content from libraries and publishers from around the world. Because OCLC is a non-profit, vendor-neutral cooperative, the WorldCat knowledge base is the only source that includes records from both EBSCO and ProQuest, Gale and Springer, and Wiley and Elsevier, among many other content suppliers.

The knowledge base also includes free and open-access materials that users can find and get alongside their library's materials.

- **WorldCat Registry** - The WorldCat registry allows libraries to maintain information about their services and contacts to help information seekers find the library online. When librarians maintain their institution's location, hours, relationships, services, and contact information, the WorldCat registry populates that information on WorldCat.org and elsewhere through links on popular web sites. Library staff can also share profiles with vendors and consortium members to ensure they always have the most accurate contact information.

#### 5. Does the product allow for searching records individually and in batch?

Yes. Our cataloging tools have intuitive interfaces that allow for basic and advanced searching as well as batch searching via query collections:

- **Connexion** – Staff can conduct basic searches using keyword, ISBN, ISSN, LCCN, Publisher Number, and OCLC Number. Qualifying a search in Connexion is combining numeric, keyword, or derived search terms with qualifier indexes and supported values using Boolean operators and (AND) or not (NOT). Common to searching in Connexion is the use of a variety of resourceful qualifiers preceded by a "/" (forward slash).

**WorldShare Record Manager** - Record Manager supports both basic and advanced searching. You can choose an index for a basic search or use search index keys such as au:, ti:, su: to perform an expert search. Advanced searching allows you to search an unlimited number of indexes combined with Boolean operators. You can pre-filter the search by format, source of cataloging, language of material, language of cataloging and year(s) of publication. As the results are faceted, you can also perform a basic search and "qualify" by the facets that are presented to narrow down the results set.

- **WorldShare Collection Manager** – Collection Manager provides staff with a search field to find collections they have already created of any collection-type. Alternatively, they can find collections and providers that are in the global WorldCat knowledge base.

#### 6. Does the product allow for creating both copy cataloging and original MARC records that comply with Montana Shared Catalog record standards? (Please see <https://desk.zoho.com/portal/montanastatelibrary/kb/articles/scp-bib-record-standards>)

Yes, with a caveat on conformance to local cataloging standards.

A library can start from scratch with a blank, format-defined/prepopulated work form, or find a high-quality record in WorldCat that resembles the title being cataloged and derive a new record from that existing record.

The interface will maintain the salient parts of the record (author, title, publisher, subjects, call number, etc.) normally resulting in minimal required editing resulting in greater efficiencies in the creation of original records.

In addition, Record Manager offers a text-view approach to creating records, for both copy and original, which is useful for special projects and other cataloging needs where MARC may be too complex to teach those doing the data entry. Record Manager includes both MARC and RDA help integrated directly into each field and subfield. When in a field, right-click to bring up a list of options such as copy field, paste field, insert field string, RDA toolkit, MARC Field help, Apply Authority link, Control field, and Display Web page. The Connexion interface also allows for macro applications,

constant data, and text strings that can be applied against the record to further speed the process of record creation (and copy cataloging).

When the record is complete, it can be exported to a local system or saved to the WorldCat database.

**Standards** – OCLC publishes its bibliographic cataloging standards at <https://www.oclc.org/bibformats/en.html>. These standards are constantly maintained and updated to meet the development of the MARC format. Library cataloging also is governed by cataloging content standards, and WorldCat fully supports all the requisite standards including RDA and AACR2 (Anglo-American Cataloging Rules, 2nd ed.).

OCLC believes there to be significant overlap of the Montana Shared Cataloging rules, but cannot guarantee complete support, particularly of the standards for “Permanent: Local” and “Temporary” records, due to the nature of the shared WorldCat database. OCLC provides a number of ways for libraries to represent information for materials that is specific to the institution, including Local Bibliographic Data and Local Holdings Records.

#### 7. Please describe whether macros and constant data are available.

WorldShare Record Manager supports many record-based macros via “Advanced Actions” in the record toolbar. Workflows for changing multiple records at a time are supported via bulk edit functionality for Local Holdings Records and Local Bibliographic Data. In addition, libraries also can use a tool in Record Manager to set or delete WorldCat holdings on up to 10,000 records at a time.

Record Manager supports Constant Data for both bibliographic and authority data.

Libraries that use the third-party tool “MarcEdit” can take advantage of its integration with the WorldCat Metadata API to work with large sets of bibliographic records, including setting and deleting WorldCat holdings.

#### 8. Please describe ability to perform authority control.

Library staff can export authority records retrieved from the Authority File or authority save file. They can export individual or multiple authority records via file download to your workstation. Or, they can export records directly to your local system via a TCP/IP connection.

OCLC is also a node for the Library of Congress’s Name Authority File, so changes that NACO-authorized catalogers make to this file within OCLC systems are automatically updated daily in the Library of Congress files.

Catalogers use these authority records and others, such as the Library of Congress’ Subject Headings (LCSH), US National Library of Medicine’s Medical Subject Headings (MeSH), Koninklijke Bibliotheek’s NTA Names (Nederlandse Thesaurus van Auteursnamen), and Deutsche Nationalbibliothek’s Integrated Authority File (GND), in their regular cataloging workflows. They then add bibliographic records with standard names, subject headings, and other information to WorldCat, creating new value and enriching WorldCat for libraries around the world. OCLC provides tools for displaying these authority files to catalogers and for linking the headings in bibliographic records to them.

#### 9. Please describe ability to validate records.

Records in WorldCat are maintained cooperatively by catalogers and other information professionals, adhere to international standards, and are vetted by several OCLC and industry quality control programs. Libraries that contribute information to WorldCat agree to abide by the WorldCat Principles of Cooperation and follow particular guidelines regarding content. Connexion, Record Manager and WorldShare Collection Manager data sync collections integrate full record validation with detailed error messaging to assist with entering new data into WorldCat.

OCLC has a WorldCat Quality Team, staff who are dedicated to improving the WorldCat bibliographic catalog, knowledge base and registry. Through WorldShare Collection Manager data sync collections, OCLC runs robust validation routines to verify data. Validation rules are applied to bibliographic and authority records before they are saved.

The WorldCat Quality Team proactively enhances records in WorldCat to reflect policy updates, such as changes to subject headings or provider-neutral coding for electronic resources. The team also reviews every WorldCat record change request submitted and determines the best action to take. Sometimes, they improve only one record at a time; at other times, they find and improve thousands of WorldCat records with similar issues.

The WorldCat Quality Team also maintains and monitors our Duplicate Detection and Resolution (DDR) software, which processes WorldCat records to identify and merge duplicates with the help of experienced quality control catalogers. In addition to the software, the WorldCat Quality Team identifies, and merges duplicates manually when appropriate. The team also responds to OCLC members' reports of duplicate records that should be merged and records that may have been merged inappropriately.

When creating new single records with Connexion or Record Manager, library staff may at any time apply validation rules. These rules are automatically applied to detect errors when you save the new record.

10. Are MARC records or MARC record loads available from vendors that our libraries order materials from? If so, please explain what costs are associated with this feature, if any.

Yes. Included in the OCLC Cataloging subscription is Collection Manager which supports both print and electronic materials. With WorldCat cataloging partners collections, OCLC partners with 30 materials vendors so that your libraries' vendors can send OCLC electronic manifests indicating items they are shipping to your libraries, and our automated software will find records in WorldCat for those items, register your library's holding on the WorldCat record, tailor the records based upon data from the vendor and your library's profile, and send the records directly to your library for loading.

Depending on the specific partner, this service can enable shelf-ready processing and you can embed barcodes, price, invoicing, and other data from the partner into the MARC record. (The vendor may charge a small per record fee.) With WorldCat knowledge base collections, OCLC partners with over 10 E providers to automatically register your E collections in WorldCat and deliver MARC records to your library. With this hands-free process, partners provide OCLC with your library-specific collections and we determine which titles are new and which should be removed.

## PART FOUR: INTERLIBRARY LOAN

### Statistical Reporting Requirements

1. Are monthly borrower and lender statistics accessible at the institution level and consortium level?

WorldShare Interlibrary Loan reports are available via the OCLC Usage Statistics interface, including:

- **Resource Sharing Borrower Reasons for No Report and Resource Sharing Lender Reasons for No Report** - Monthly reports for both Borrower and Lender activity help Lenders evaluate their fill rate and borrowers to refine their Custom Holdings Groups. The Reasons for No report shows details for requests that were refused, including ILL Record Number, Title, OCLC Number, the lender's name and OCLC symbol the reported reason for not filling the request, and the date the request was refused and imprint date of the material. Your libraries can use this data to determine whether the age of the requested material falls into any pattern that may allow for further refinement of deflection rules. The Resource Sharing Lender Reasons for No Report shows similar information but does not include the lending institution's position in the lender string.
- **Strategic Union List Report** - The Strategic Union List Report gives libraries a jump start on entering union list holdings data by providing a list of serial titles requested from their library via interlibrary loan.
- **Borrower Resource Sharing Stats Report and Lender Resource Sharing Stats Report** - These reports provide a detailed look at all the requests that pass through a library's system in a given month and are organized by transaction. A record appears in this report for any month during which action was taken on the request, so a request may appear in multiple months. Because of the depth of this report, only one month of statistics can be displayed at a time.
- **Borrower Activity Overview Report and Lender Activity Overview Report** - These reports show the number of requests initiated by a library in a specified month, the number of requests cancelled in that month, and the number of requests reported as filled for that month. For the Borrower Activity Overview Report, unfilled requests may show up in future months as being filled, so they would appear in two months' Activity Overview reports.

- **Borrower Transaction-Level Detail Report and Lender Transaction-Level Detail Report** - These reports provide details of requests to or from specific institutions within a given month. The Requests to Lender/Borrower total represents each time a request was passed along to an institution. In the Borrower Transaction Level Detail Report, because one request can be handled multiple times, the number of requests is higher than the number represented in the Borrower Activity Overview Report.
- **eSerials Request by Journal Title Report** - This report displays the OCLC number, Journal Title, ISSN (where available), and the total number of requests for electronic journals received and filled for each electronic journal requested.
- **Serials Request Overview Report** - This report shows your library the total number of requests for serials received, and then breaks this total down into print and electronic journals. It also shows the number of requests deflected, the number of requests filled by journal type, and the percentage of requests received and filled for electronic journals.
- **Copyright Compliance Payment Report** - This report helps you track Copyright Compliance payments by using the ILL data.
- **Article Exchange Reports (For libraries that use Article Exchange)** – these are daily and monthly reports that include data about the borrowing library, the file name, when it was uploaded, when it was first viewed and turnaround time.

2. Are statistical reports available for IFM (ILL Fee Management) data?

Yes. ILL Fee Management (IFM) Reports are monthly detailed reports that itemize library-to-library borrowing debits and library-to-library lending credits listed on your OCLC bill. A Summary view features totals by institution with the institution symbols linked. Clicking on the institution symbol shows the transaction details for that particular institution. A Detail report shows all transaction detail for each institution.

3. Are statistical reports available for in-state and out-of-state interlibrary loan monthly totals by institution and in both aggregate and summary at the consortium level?

Yes, statistical reports can be created for in-state and out-of-state interlibrary loan monthly totals by institution, in both aggregate and summary at the consortium level.

## Technology Requirements

1. Can institutions set permissions so that end-users can submit mediated or unmediated interlibrary loan requests online?

Staff and patrons can take advantage of ILL Direct Request profiles, which allows incoming requests to match certain criteria and be sent directly to potential lenders. Patrons using WorldCat Discovery or FirstSearch can submit requests directly into WorldShare ILL. Staff can search within WorldShare ILL for a desired bibliographic record and submit the request to Direct Request to have a lender string assigned.

## Cost Estimates

OCLC

Please Note: The price estimate below is based on the parameters described in section 2.0 Project Description for the estimated 200 Montana libraries.

OCLC Cost Estimate	Low Estimate	High Estimate
OCLC Cataloging and Metadata Annual Subscription	\$236,711	\$289,313
OCLC WorldShare ILL Annual Subscription	\$124,380	\$152,020
OCLC FirstSearch/WorldCat Discovery Annual Subscription	\$46,246	\$56,522
CONTENTdm Annual Fee	\$12,627	\$15,433
CONTENTdm Annual Collection Storage Fee up to 3 TBS (Hosting)	\$12,286	\$15,016
CONTENTdm Annual Preservation Storage Fee up to 7 TBS (Digital Archive)	\$22,115	\$27,029

### CONTENTdm Annual Fee includes the following:

CONTENTdm Annual Base Subscription Fee (Includes 1 OCR project Client)

7 Additional OCR Annual Fees 10K PPM

3 Additional OCR Annual Fees 25K PPM

### Estimated Optional Services:

#### SCS GreenGlass

Set-up fee: Estimated at \$6250 per institution pending the number of records.

Up to 1,000,000 bibliographic records per institution @\$0.03 per record

All bibliographic records over 1,000,000 per institution @\$0.015 per record

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## Recollect

### Key Project Risks

Key risks to projects of this nature include:

- Project communications
- MSL personnel constraints and availability
- Project decision making processes
- Metadata quality
- Quality of digital assets in the collection
- Data extraction from existing platforms

### Price Estimates

#### Recollect Subscription

Annual Recollect Subscription \$85,000

Includes:

- 10TB storage
- Public Access and Discovery
- Access Control for Collection Managers
- Unlimited users
- Unlimited Administrators

Additional Storage – annual per 10TB \$20,000  
 Digital Preservation – 10TB \$25,000  
 Additional Digital Preservation storage – annual per 10TB \$12,000

**Professional Services**

Implementation \$65,000-90,000

Includes:

- Project Management
- Discovery workshops
- UX configuration
- Metadata configuration
- Data load
- Administrator training
- UAT support

Excludes:

- Data Extract from existing systems
- Data Transformation and cleansing
- Travel and disbursements

**Timeframe**

Timeframes for large complex projects are difficult to assess at this early stage and relies heavily on the amount of resource available from the customer to undertake their activities in projects of this nature. This can range from seeking stakeholder input, developing detailed metadata requirements, data extraction, cleansing and transformation, user acceptance testing, and so on.

In our experience, a project of this scale can be completed in a 6-9 month timeframe, however this could easily expand into 18 – 24 months without the necessary resources to manage data transformation, metadata creation and so on.

**Quartex**

Quartex fees for the Montana State Library contract are based on a minimum five-year agreement and have been broken into two categories: annual subscription costs and one-time fees.

**CATEGORY 1 – ANNUAL SUBSCRIPTION COSTS**

Annual subscription costs make up the bulk of the five-year contract fees and are based on the digital footprint that Montana State Library wishes to occupy on the platform. The three tables below outline pricing for 1TB, 3TB and 5TB of space to give a sense of the range of subscription costs. If Montana State Library requires a quote for a different footprint other than those outlined below, please request a customized price quote. Montana State Library can request to increase their footprint at any time during the contract. Acknowledging that Montana State Library would potentially need to support the costs of two platforms while migrating content off its current platform, we are offering to waive Annual Subscription costs in the Implementation Year (Year 1)

**STORAGE SPACE (1TB) – ANNUAL SUBSCRIPTION FEES**

FOOTPRINT		LIST PRICE	DISCOUNTED PRICE
IMPLEMENTATION YEAR 1 (July 1, 2020 – June 30, 2021)	1TB	\$27,000	WAIVED
YEAR 2 (July 1, 2021 – June 30, 2022)	1TB	\$27,000	\$21,600
YEAR 3 (July 1, 2022 – June 30, 2023)	1TB	\$27,000	\$22,950
YEAR 4 (July 1, 2023 – June 30, 2024)	1TB	\$27,000	\$24,300
YEAR 5 (July 1, 2024 – June 30, 2025)	1TB	\$27,000	\$27,000

<b>TOTAL COST</b>	\$135,000	<b>\$95,850</b>
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**STORAGE SPACE (3TB) – ANNUAL SUBSCRIPTION FEES**

FOOTPRINT		LIST PRICE	DISCOUNTED PRICE
IMPLEMENTATION YEAR 1 (July 1, 2020 – June 30, 2021)	3TB	\$32,000	WAIVED
YEAR 2 (July 1, 2021 – June 30, 2022)	3TB	\$32,000	\$25,600
YEAR 3 (July 1, 2022 – June 30, 2023)	3TB	\$32,000	\$27,200
YEAR 4 (July 1, 2023 – June 30, 2024)	3TB	\$32,000	\$28,800
YEAR 5 (July 1, 2024 – June 30, 2025)	3TB	\$32,000	\$32,000
<b>TOTAL COST</b>		<b>\$160,000</b>	<b>\$113,600</b>

Each Quartex license comes with one URL or website associated with the contract. Should Montana State Library wish to purchase additional URLs for each of its contributing institutions to display their own content to a completely customizable front-end website, additional URLs could be purchased for \$2,500 per URL, annually. All billing for unique URLs would be centralized with the license and billing for Montana State Library. Any fees or billing to consortia members who wish to have a unique URL would need to be collected by Montana State Library staff with their members.

**URLs – ANNUAL SUBSCRIPTION FEES**

1 URL	Included
2 + URLs	\$2,500 per URL (annual uptick of 5%)

**CATEGORY 2 – ONE-TIME FEES**

One-time fees reflect customer support hours that will be dedicated to Montana State Library staff to support the launch and ongoing implementation of Montana State Library digital content on the Quartex platform. To best support the needs of Montana State Library and its consortia members, Quartex staff recommends utilizing a train-the-trainer approach. Training and implementation support would be customized by the Quartex Product Specialist, who would work closely with designated points of contact at Montana State Library who would then support their member libraries. During the implementation year, we recommend a minimum of 50 hours of customer service support. For the remaining years of the contract, ten hours of customer service support are automatically built into Quartex annual subscription costs. Additional customer support hours can be purchased at any time in blocks of 10 hours for an additional \$1,000 per block. The table below outlines the costs for recommended customer service support hours for the first five years of the contract.

**CUSTOMER SUPPORT – ONE TIME FEES**

IMPLEMENTATION YEAR 1 (July 1, 2020 – June 30, 2021)	50 HRS	\$4,000
YEAR 2 (July 1, 2021 – June 30, 2022)	10 HRS	-
YEAR 3 (July 1, 2022 – June 30, 2023)	10 HRS	-

YEAR 4 (July 1, 2023 – June 30, 2024)	10HRS	-
YEAR 5 (July 1, 2024 – June 30, 2025)	10HRS	-
<b>TOTAL COST</b>		<b>\$4,000</b>

**HTR/OCR/AV Full Text Search Services – ONE TIME FEES**

BULK RATE	FREE CREDITS	TOTAL COST
HTR (25,000 pages) \$.80/page	1,500	\$18,800.00
OCR (100,001 pages) \$.03/page	5,000	\$2,850.03
AV (15,000 minutes) \$.50/minute	2,500	\$6,250.00
<b>TOTAL</b>		<b>\$27,900.03</b>
<b>40% DISCOUNT IN YEAR 1</b>		<b>\$16,740.02</b>

The number of User Subscriptions proposed for Montana State Library is 5 administrators level users and 50 editor level users and 50 reader level users. Additional users may be purchased for \$1,000 for a block of Authorized Users comprising of: 1 Administrator, 5 Editors and 25 Readers.

**User Subscriptions – ONE TIME FEES**

5 administrators, 50 Editor Level Users and 50 reader level users	\$2,000
Block of Authorized Users – 1 Administrator, 5 Editors and 25 Readers	\$1,000 per block

See also Quartex appendix on OCR