

# Implementation Minus 40 Days: Considered Pragmatism Under Pressure

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## Outline

- Success factors
- Data cleanup considerations
- Priorities before Go Live
- Data review results & impacts
- Decisions for expedited implementation
- Support for staff upon Go Live
- Post Go Live early days
- Where we are now & where we're going



Hello everyone, welcome. Today Marcia and I will be describing the Alma/Primo implementation that took place a year ago at the University of California, Santa Cruz. We had 40 days shaved off of our implementation timeline due to circumstances beyond our control which were created by our previous ILS vendor. We will be focusing on the acquisitions and metadata side of our migration and implementation and also the structure of our team and the way we approached challenges.

## Success Factors

- Teamwork
- Consensus Model
- Inter-departmental teams
- Common approach to change management
  - *Managing Transitions* by William Bridges
- Strong communication



Before we get into decisions, I'm going to describe how we structured our implementation. We never could have moved in the agile way we did were it not for the existing team structure of our implementation group already in place. The team approach that we took with this project was so successful that it has been instrumental in inspiring the development of several more teams within the library to address both short range and long range projects.

UC Santa Cruz had an Alma implementation team with representation from departments all over the library, and all members of the team attended all meetings with our Ex Libris implementation team. We also had a separate Primo implementation team with similar representation from all departments. Marcia was the sole overlapping member, serving on both teams. Decisions were made by consensus and members supported one another. When the team decided to move forward with the accelerated timeline, everyone was already on board due to the strong team feeling that already existed.

One of my favorite moments from this, indeed, very stressful time: when we got the word that we would have to accelerate our timeline, everyone in the room started discussing how we could make that happen. No one said, "This

isn't possible." I think that attitude was a big part of why we were able to succeed. I also want to give a shout out to our library administration. As we discussed what could and could not happen in the shortened time frame, they were incredibly supportive and willing to communicate out to the campus.

A strong communication strategy was another fundamental part of our success. As I mentioned, our library administration was very focused on offering the type of support that would allow us to succeed. Our team was in communication early with the campus Committee on Library and Scholarly Communication, a faculty committee that is part of our Academic Senate. We also communicated early and often with our Campus ITS community to build support for the project. Our main communications to faculty and the campus were centered around the ordering freeze that we deemed necessary to have a successful migration.

## Change Management

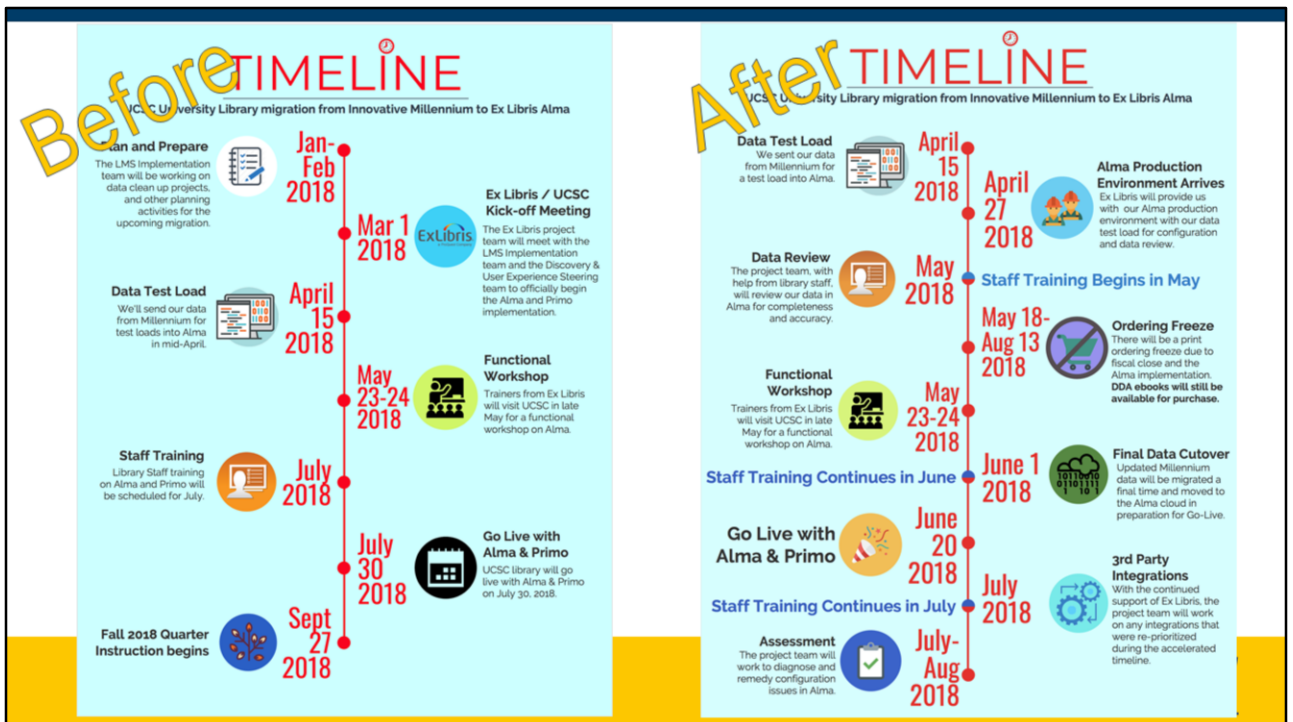
“Situational change hinges on the new thing, but psychological transition depends on letting go of the old reality and the old identity you had before the change took place.”

William Bridges, *Managing Transitions*



Just as we focused on communication with the campus, we also prioritized our library-wide communication. During this time, many members of the implementation team read the book *Managing Transitions* by William Bridges. We tried to take the core concepts of the book to heart and we made every attempt to be as transparent as possible when communicating about change. A concept that was really useful to me in a project like this was the “marathon effect”.

To paraphrase, the marathon effect is the idea that those closest to the change go through all the steps of the transition before they launch the change. As Bridges says, they are ready for the new beginning, but they have forgotten that most staff haven’t even begun to think about the transition yet. And name refers to the fact that, often in a marathon, the front runners finish the race before the back runners have gotten started.



To help mitigate the marathon effect, our project team leaders did a lot of communication out to library staff as well. They presented at library staff meetings and there was a page for the team on our library staff web portal. This page contained timeline details as well as an archive of past communications, shared documents, and helpful links, including to Alma training in the Knowledge Base and the ELUNA website. Here you can see the timeline before and after the acceleration. These infographics were posted on the library staff web portal and they were created by our project team lead, Gillian Keleher. Besides the change in dates, the most striking difference is that staff training is a focus of the accelerated timeline in a way that it wasn't before. We weren't going to leave them behind, and this timeline was one of several tools to let them know that. Another element that is specifically called out on the accelerated timeline is Data Review. This was another area where we wanted to reassure staff that preliminary work was being done to create a strong foundation for the implementation. Now Marcia will talk about some of the key points of our data review.

## Data Cleanup - Start ASAP!

- Non-standard data
- Local practice
- Erroneous data
- Conflicting data
- Missing data
- Irrelevant data



The library had been using our previous system for more than two decades, so we had been anticipating a move to a new system for several years. Staff in Metadata Services also knew that the consistency and quality of our data would have an enormous impact on a move to a new system, so data cleanup had been a department priority since 2015. There were many sources of data problems.

Practices had developed based on the needs of the old system. For example, there were around twelve thousand item records created without barcodes so that the call number would display in the public catalog.

A past OCLC reclamation project had resulted in merged fields, duplicate fields, and missing 008 data.

Data within a bibliographic record contradicted itself so was obviously in error, and we had bibliographic records missing critical fields.

Check-in records (the system's equivalent of a holdings record) were created for all electronic resources for an ERMS trial and were no longer needed. Item records with no data were created for electronic resources for the purpose of synching locations between item and bibliographic records, a specific practice of our old system that was never implemented.

## Data Cleanup Considerations

- Standardize data / scrutinize local practices
  - ANSI/NISO Holdings Statements for Bibliographic Items
  - MARC coding for LDR/06 (type of record)
  - Local standard for equipment records
  - Video game platform in 753 field using controlled vocabulary



Our first recommendation is to standardize data whenever possible. Our old system did not have holdings records for monographs, so holdings data had been recorded in a local field in the bibliographic record and not in a way that was machine-actionable. Data for basic bibliographic holdings, indexes, and supplements were recorded in the same field. Data about holdings, missing items, location, and copy number were recorded in the same subfield of the local field. Three years before our move to Alma, the Metadata Services Department implemented the ANSI/NISO standard for holdings statements for bibliographic data and began a lengthy process of cleaning up over 77,000 records. Some of the cleanup was done in batch and some of it required verifying holdings. Sound recordings had been coded with a locally defined material type for OPAC display of “music CD.” We implemented the MARC codes for the LDR/06 and changed the locally defined value to either j for audio music or i for audio spoken. We had records for equipment that circulated, and these had been created in all manner of different ways, so we developed a standard practice for this type of record and upgraded all of our equipment records. Video games are an important part of our collection, and users like to search these by platform. This information had been recorded in a searchable reserve list that was managed manually. We added video game platform to the 753 field (computer machine information) using a controlled vocabulary so we could let go of maintaining the reserve



list.

## Data Cleanup Considerations

- Erroneous data
  - LDR/07 (bibliographic level) coding
  - Inconsistent use of local 9xx fields
  - Monograph records with serial fields
  - 049 fields with invalid data
  - Duplicate OCLC numbers



We focused our cleanup on projects that would be the most impactful, and that included identifying and correcting bad data.

For unknown reasons, we had around 6000 records for analytic titles with erroneous coding that impaired our ability to find print holdings for collection management and to accurately report holdings to HathiTrust.

Monograph holdings had been coded in a number of 9xx fields, not just the local field we had designated for holdings data.

Another inexplicable thing we found in about 7000 monograph records was a field reserved for serials and integrating resources.

There were records with the 049 local holdings field that contained all manner of invalid data.

We also discovered that several hundred records for different resources were created using the same OCLC record number.

## Data Cleanup Considerations

- Conflicting data
  - Location/format mismatch
  - Location mismatch between bibliographic and item records
  - System Mat Type code doesn't match Leader/06 (type of record)



Erroneous data within records that presented conflicting information proved easy to identify.

We found records for Internet resources that had a physical library location. There were records where the 008/23 (Form of Item) and location were not in sync for microforms. Another obvious error were records with locations that differed in the bibliographic and the item records.

A system code, Mat Type, that should correspond with the Leader/06 (type of record) contained conflicting coding.

## Data Cleanup Considerations

- Irrelevant data
  - Disposition records for cancelled serials
  - Serial handling records for classed separately titles no longer received
  - Local notes and fixed field coding of order and check-in records
  - Old order records not required to retain
  - Resource records created for the ERMS trial
  - Item records created for electronic resources



We were determined to take only what we needed into our new system.

A past serials cancellation project allowed us to remove certain disposition records and serial handling records.

After verifying institution records retention policies, we deleted old order records we weren't required to retain.

We embarked on a project to review and revise coding for order and check-in records and were able to eliminate quite a few codes that were no longer used.

We deleted records from past projects that were no longer needed such as the resource records created for the ERMS trial and the item records created for electronic resources.

We also removed unnecessary data such as location information in item records to accommodate the limitations of a now obsolete printer

## Data Cleanup Considerations

- Missing data
  - No OCLC number
  - No 245 field
  - Physical materials with no item records
  - Fields with no data



Some of our records were missing important data. We addressed each of these with separate cleanup projects.

## Implementation Priorities Before Go Live

- P2E mapping
- Getting forms & data extract right
- Thorough implementation team training
- Minimal staff training
- Data review and more cleanup



With an accelerated implementation timeline, we had to determine and focus on priorities.

We realized early on that the P2E process would require a lot of attention. It took a while to fully understand the Alma designations of portfolio, package, and database, and we began identifying these 3 types of electronic resources in our old system as soon as we grasped the concepts.

We were required to submit our configuration, field mapping, and migration forms not long after we began the implementation process which turned out to be a good thing. We had opportunities to review our decisions with our data in the sandbox and make changes in a second form submission process. This was true of our data extract as well and that allowed us to identify and correct some unintended consequences from our initial data extract.

The department implementation team members knew the shortened timeline would present a challenge for training. Nevertheless, the 3 team members completed all of the Ex Libris assigned training - Alma Essentials and Functional Training - and also the Alma Certification training. Training for department staff was kept to a minimum because Implementation Team members were so focused on other tasks.

We needed all hands on deck for our data review, so we developed and delivered training in searching and navigating Alma and understanding how our data is presented in Alma.

This enabled us to utilize all department staff in reviewing sandbox data and to orient department staff to Alma.

## Data Review Results & Impacts

- UCSC
  - Fix in old system before migration
  - Fix in Alma post-migration
  - Corrections to data extracts
  - Corrections to migration and field mapping forms



The importance of review of test data cannot be over-emphasized. It's the responsibility of the institution to verify that data migrated correctly. In our review of test migration data, we found many issues that we tracked on a shared departmental spreadsheet and reported to Ex Libris through Basecamp and sometimes Salesforce.

We found errors that we were able to fix in the old system before migration, such as bad coding in 856 fields. URLs in 856 fields with no subfield u and 856 subfield u that didn't start with "http:" failed to migrate.

Some issues had to be postponed until after migration. For example, we had created two checkin records with the same location for journal titles that had holdings split between the library and WEST, a collaborative journal archiving program in the western region of the United States. Because the locations were identical, Alma compressed this information into one holdings record.

Some issues were addressed through corrections to our data extracts. For example, our test bound-with titles had no item records in Alma due to missing punctuation in the data extract.

Our holdings records seemed really chaotic, due to the number of notes we migrated for the test. This was easily fixed with decisions about notes to drop and changes to the mapping form.



## Data Review Results & Impacts

- Ex Libris
  - Include data that missed the test migration
  - Fix bug in Primo code
  - Create local indexes for UCSC



We discovered problems that needed attention from Ex Libris.

Item policies and monograph holdings data didn't migrate in the test which was resolved for Go-Live

Enhanced contents notes had a garbled display in Primo due to a bug for which we filed a Salesforce case. This has been resolved.

There were many missing order records due to a default vendor code of "none." Ex Libris was able to fix this by adding "none" to the vendor code list.

At our request, Ex Libris created local Alma indexes for searching records for UC shared electronic resources, discovery records associated with our DDA acquisitions, and old system bibliographic record number.

## Prioritization for Expediency

### Items Prioritized

- Migrate Records
- Circulate items

### Items Delayed

- Ordering
- Third-party Integrations



So, turning from our data review, let's take a look at how we prioritized our library and departmental needs in the expedited implementation plan. We made two major choices to expedite our implementation. The first was to extend our ordering freeze several months past our go-live day. The second, which, for our department was dependant on the first, was to hold off on setting up any third party integrations until after Go-Live. With the support of library administration, our go-live goals were to have the records migrated and to have the ability for our Fulfilment unit to circulate materials.

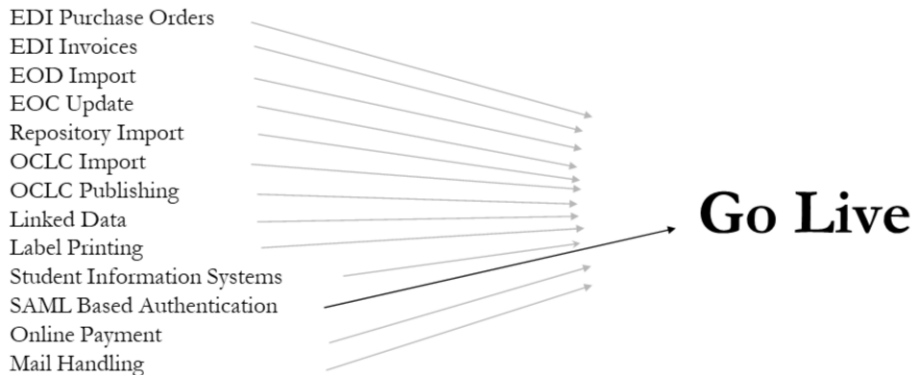
Extending our financial freeze had the greatest effect on the campus and our own departmental staff. We already have an annual ordering and invoicing freeze around the close of the fiscal year. Because of migration, we were already planning to start that freeze earlier in the year, in this case, mid-May. To better support our staff in training needs (and not blow their minds) library administration supported extending the ordering freeze through mid-August.

I mentioned that this affected staff as well, and I just want to recognize the human factor in these types of decisions. We had chosen to halt ordering and invoice payment to alleviate staff stress, but when someone's job is to the pay

the bills, and the bills keep coming in and they can't pay them, that does create a different type of stress. This was somewhat exacerbated by our need to delay training in these tasks until after go-live. Despite not being required to do the tasks, staff still felt inadequacies around the tasks because they felt a responsibility to be fulfilling them. I still feel that we made the right choice, but I mention this as an extension of the conversation about change management. Certainly during a system migration, but even through less prominent changes, people can surprise you!

As Marcia mentioned earlier, in constraining what was required of staff for go-live, we were able to focus on data review. This meant that we did not have to focus our energies on learning how to create order records and receive items in Alma until after go-live. By extension, this also meant that we didn't have to be able to bring new records over from OCLC for cataloging and we also didn't have to know on day one how to print spine labels. Those two tasks lead me into the second choice that really facilitated a smooth accelerated go-live.

## Third Party Integrations



Before our timeline was accelerated, we had created a very ambitious list of third-party integrations that were desired for go-live. Each representative on the implementation team considered their department's needs and created their priority list. When we learned of the accelerated timeline, everyone did an amazing job of reconsidering priorities and needs. The only third-party integration ready for go live was our SAML based authentication. We made this integration a priority to smooth the way for staff and patron login. That wasn't ideal, however, we also found that it wasn't the end of the world. Post-go-live we focused on 3rd party integrations in order of priority. Our top priorities were being able to load our patron data and also being able to bring over records from OCLC Connexion.

## Implementation Office Hours

- Hours held at different times in the week
- Representatives in office hours from Fulfillment, Metadata Services, and Discovery
- LibAnswers queue for questions
- Responsive training



To provide comprehensive support to library staff, the implementation teams held office hours. For the first month after go live office hours were available 3-4 times a week. During the 2nd and 3rd month we decreased the frequency to once a week. These office hours were held in a meeting room in the library and they were held at different times each week in an effort to meet the needs of staff that worked split schedules. They often included at least one representative from fulfillment and a representative from our metadata services department, as well as a member of our Primo/Discovery team. All library staff were invited to drop in with questions and concerns for problem-solving and workflow help. We also used a LibAnswers Queue for problem reporting. This was and continues to be a very successful mechanism for staff to ask questions and point out issues, and especially in the early days, these questions were used as a guide for the implementation team to identify training needs among staff.

## General Post Go-Live Early Days

- Perform more data review
- Test everything in the sandbox
- Communicate frequently with Ex Libris & your team
- Document & track projects



We continued to review data after our Go Live date. We verified that problems identified in the previous data review were corrected, and we discovered new issues. Some were identified by public services staff working with Primo display.

It's critical to test everything in the sandbox before implementing in production. We really learned Alma through trial and error as we continued to work through implementation tasks, first in the sandbox and then in production.

It's also essential to communicate with Ex Libris. We did this through weekly meetings and Basecamp discussion posts. When our EL Project Team couldn't resolve an issue, we created a Salesforce case. Working closely with Ex Libris shortened our learning curve and they were able to correct some data that did not migrate as expected. The MS Implementation Team and the Library Implementation team continued meeting weekly. There were so many issues to keep up with that we had to document and track everything. A spreadsheet with worksheets for in process, pending and completed tasks was a sanity saver.

## Specific Post Go-Live Early Days

- Create, test and implement
  - Filtering/combining sets, Normalization rules, Brief record rules
  - Merge rules for OCLC Connexion import
  - Import profiles
  - Electronic Data Interchange (EDI)
  - Workflows
- Import local authority records



Metadata Services wanted to become fully operational as soon as possible after Go Live. Learning to create, filter, and combine sets allowed us to identify and isolate data that needed some sort of remediation.

Gaining an understanding of Alma normalization rules was necessary for making any batch changes to MARC records. We were able to create norm rules for data cleanup projects and for import profiles to determine what data comes into the system and what changes are made to that data upon import.

We configured local brief record rules based on encoding level of records and created import profiles for vendor and consortial records.

Setting up Electronic Data Interchange required collaboration with our EDI-enabled vendors.

As these things came together and our understanding of Alma grew, we were able to determine workflows for Acquisitions, Electronic Resources, and Resource Management. Although we postponed fully implementing Alma authority control, we did go ahead and import our local authority records.

## Immediate Data Remediation

- User experience as guide for priorities
  - Brief records
  - Barcode formatting



There were several data issues that were identified by our fulfillment unit shortly after go-live. We prioritized these issues by judging how much they affected the library patron experience.

One example is that our brief records migrated with the publication date of 2013. This seems to have been part of the ExLibris migration script which has been corrected. All of our brief records migrated into the pre-set book template. That template had the pre-set year of 2013. Because all of our equipment records were brief records, post-migration we had laptop records that said they were books published in 2013. Fixing these records was our first experience with creating sets and running jobs.

We had a number of item records in which the barcode entered in the record had been entered with the spaces between the digits of the barcode. Barcodes with and without spaces did not create problems in our old system. However, Alma expected one format for barcode numbers. We did not catch this as an error during our data review because it did not look like an error to us and we did not try to circulate materials with the spaces. ExLibris was able to fix this problem for us with an API.



## What We've Accomplished

- Workflows established for Acquisitions & Resource Management
  - Ordering, receiving, cataloging, activating electronic resources
- Refining OCLC record import with normalization rules
- Automate almost all import profiles
- Laying the groundwork for OCLC publishing
  - Brief level rules set for all incoming records



Now, a year later, we are open for business in nearly every respect. Workflows have been designed, tested, and implemented for ordering, receiving, cataloging, and activating electronic resources. We have refined our OCLC record import using normalization rules. We have automated almost all of our record import profiles. And, we are laying the groundwork for our OCLC holdings publishing. We have set up our brief level rules for all incoming records.

## Into the (Near) Future

- OCLC publishing
- ERM functionality
- Authority control
- Aeon integration with Primo VE
- Publish linked data



At the top of our list of next steps is activating the OCLC publishing job. We have some clean up to do with our management tags first. We did make it a priority at Go Live to get the management tags set correctly for any incoming records - whether from OCLC Connexion or Alma import profiles.

In the past, we used an open-source system, Coral, to manage acquisitions and license information for electronic resources. This data was not included in our migration to Alma, and we plan to move current relevant data to Alma soon so that we can benefit from Alma's full functionality for Electronic Resource Management.

We've not had time to explore authority control in Alma, and we've suspended activity with our AC vendor until we do.

Aeon is an automated request and workflow management software used by our Special Collections Department. It's not yet fully integrated with Primo VE. In the meantime, Ex Libris created a workaround for us that provides a link to the Special Collections Aeon request system from the Primo VE record, with the title, author, and publication information populated from the Primo VE record.

Alma's linked data functionality is opt in. Alma can expose linked data in JSON-LD, BIBFRAME, and RDA-RDF formats. JSON-LD is available for

viewing in Alma, both from the search results and from the record view in the Metadata Editor. Also, Alma currently exposes BIBFRAME2 in the Alma Resource Management user interface. Publishing BIBFRAME to third-party systems will require the creation of a publishing profile with BIBFRAME output format. Publishing our bibliographic data as Linked Data is something we will do as soon as time permits and our understanding of this functionality grows. We look forward to learning more about Alma's Linked Data options and taking a deeper dive into Alma functionality in upcoming ELUNA sessions.



Thank you

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