

Outsourcing EAD:

**Guidelines for NCEAD Institutions considering an
outsourcing solution for encoding legacy finding aids**

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Making a decision to outsource Encoded Archival Description (EAD) encoding can be a difficult one. Misconceptions about the nature and process of outsourcing can mislead institutions into a programmatic situation they are not equipped to handle. This document is intended to provide some direction in understanding the programmatic structure of an outsourcing project as well as give institutions considering an outsourcing solution concrete information about the process, the “dos and don’ts” in outsourcing. This white paper provides institutions with information so that they can take full advantage of outsourcing opportunities without jeopardizing larger visions or goals. In addition, the document provides information necessary to gain administrative support for an outsourcing project and ammunition for grant proposal justifications.

What is Outsourcing?

At base, outsourcing is purchasing a piece of a product or service rather than producing the complete product in-house. In EAD, outsourcing refers to the encoding of existing finding aids in the EAD encoding standard to fit within your published online collection information. Outsourcing is a process that is well-suited for a large quantity of legacy finding aids because it allows you to use resources external to your institution. Each institution is a customer of the outsourcing vendor, who is working on several projects at one time. Piecemeal finding aids (as they are “completed” processing) may not be suitable for an outsourcing solution.

The main purpose of outsourcing is to assign a particular task to a vendor that can produce it more efficiently and effectively than you. For EAD, though, outsourcing can also be deceptive. It does not include the establishment of arrangement, description, and encoding practices, or publishing, or server hosting of EAD documents. The outsourcer works with you to assure accurate and quality conversion of documents, but will only provide the encoded document, not process the collection or write the finding aid. This is merely a way to get finding aids marked up so that you have EAD documents for your program. Outsourcing does not diminish the role of EAD within an institution or the importance of understanding the standard. It just means that one does not have to EAD tag the data oneself!

ACT I: the Pre-process

The Decision to Outsource

The decision to outsource should be understood in light of what outsourcing can and cannot do for your institution. For instance, outsourcing will encode a bulk of legacy finding aids; outsourcing will not write better finding aids. Outsourcing will follow established guidelines for encoding, such as the NCEAD Best Practice Guidelines; outsourcing will not establish special local guidelines and practices, and will need guidance in their application. Outsourcing produces a part of the end product; outsourcing will not complete the entire process. Outsourcing is only one piece of an EAD program.

Pros:

- Does not require new staff or additional staff time for encoding and OCR or rekeying.
- Can accomplish a large bulk of encoding relatively quickly.
- Training and labor expenses can be hard to procure.
- Deals well with bulks of legacy documents.

Cons

- Deceptive; there's a lot of work that goes into a successful outsourcing program.
- Lack of detailed familiarity of encoding with finding aids that are outsourced rather than done in-house.
- Harder to manipulate display functions because of lack of direct familiarity with encoding, unless one involves a stylesheet developer with the preparation of local best practice encoding guidelines.
- Separates out processing and encoding as two different tasks, as all retrospective conversion does.

In order to approach a decision to outsource, it is important to follow a few steps that will help you judge the applicability of the program for your institution. These steps comprise a *Needs Assessment*

1. How many finding aids do I have currently that are good quality (consistent with current descriptive standards) and in standardized formats that can be documented in local practice guidelines?
2. How will outsourcing fit into the larger picture of my EAD program?
3. How will the outsourcing project be funded?
4. Are my needs similar to institutions that have used outsourcing?

Needs Assessment

How many finding aids do I have currently that are good quality and in standardized formats that can be documented in local practice guidelines?

This first question is perhaps the most fundamental in determining whether or not outsourcing would be an appropriate solution for your institution. Because outsourcing vendors do not work within your institution, the issue of the “state” of your finding aids is essential. The fact that you will be sending your finding aids to be encoded in EAD, does not affect the content of those finding aids. A finding aid that inadequately assists researchers is still a bad finding aid, even if it is encoded in EAD. In addition, the variability of finding aids can seriously decrease the effectiveness of an outsourcing project. Vendors that specialize in outsourcing are able to offer low prices because they can become routine and therefore expedite the encoding through form application. If every finding aid is in a different format, this forces the vendor to individualize their process, thus driving up the prices. Of course the different materials (manuscripts, maps, oral histories, etc.) being described in the finding aids will require special feature documentation in your local practice guidelines.

Steps:

1. Sampling your finding aids to do a “status” assessment will provide you with the information you need about the state of your finding aids. You are looking at both the quality of description as well as the format.

2. Once you have completed this assessment from a sample, a discussion should take place in the institution that balances what you have available within the finding aids and what the expectations of the finished product will be. For instance, are your “Index Terms” represented through a controlled vocabulary? Is this a requirement for your institution at this time? The vendor will not be converting index terms for you (that is a content issue), so if they are not represented through a controlled vocabulary, how will that be accomplished? Many of these issues will be dealt with during both pre-processing and post-processing as well (discussed below).

How will outsourcing fit into the larger picture of my EAD Program?

Approaching EAD as a *program* rather than a *project* assures longevity and sustainability. One of the first aspects of EAD to learn is that it is not static. Already, EAD has gone through Alpha, Beta, Version 1.0 and is currently EAD 2002. In addition, institutions do not typically have a finite group of collections. As more collections are brought into an institution, more finding aids will be produced. It is the goal of NCEAD to encourage each institution to integrate EAD into the process of arrangement and description rather than as a new task added onto the process because that is the most effective and efficient use of EAD. It will inevitably affect the process itself and that needs to be taken into account when embarking on any project, whether it is in-house encoding or outsourcing.

Outsourcing is best suited for large backlogs of paper or non-electronic finding aids. Outsourcing is not an adequate solution for new finding aids, because the lower quantity of traffic to the vendor will generally decrease their willingness to provide an adequate price. As well, finding aids are not produced for new collections on a regular basis. Each institution implementing EAD in their repository should consider in-house encoding as part of that process. This provides several advantages: First, no matter who is actually doing the encoding, the institution must have a firm understanding of the standard and the technological aspects of implementing it. Vendors will follow directions and collaborate on providing solutions, but the institution itself needs to be making the decisions. What interpretation of EAD are you going to use? If one does not understand the standard, then it will be difficult to participate in that decision-making process. Secondly, the actual encoding of a finding aid is really only one piece of an EAD program. The program also includes content standardization, stylesheet considerations, and parsing and publishing the finding aids plus search

and browse mechanisms. Vendors do the encoding, but do not do the rest of the process. Each repository's EAD team leader must have a firm understanding of EAD (not just the tags, but the entire package) so that s/he can work efficiently with the vendor to achieve the encoding as quickly as possible. This will minimize cost and maximize the effectiveness of an outsourcing program.

What does this involve?

- EAD workshop(s) to become familiar with the standard.
- An EAD team is recommended to deal with the various aspects of establishing an institutional implementation as well as to work through the steps of the "Process" (see Act II) and the "Post-process" (see Act III). Assess the impact of the outsourcing project on time commitments for EAD team members.
- Understanding of your technological capabilities. What servers and system administrators will be available? What kind of software and what budgetary ability do you have for purchasing new software if needed? Examples of software include adequate licensing for XML editors and a search engine.
- Documentation will help the vendor. Keeping a log of decisions that are made through the team and the finding aid assessment described above will prevent you from repeatedly going over the same ground. It also ensures that your outsourced documents (those converted to EAD) and new EAD finding aids will have consistent encoding. This is particularly important for compatibility with stylesheets and search and retrieval functions.

How will this outsourcing project be funded?

Outsourcing can be a cost effective way to encode legacy finding aids into EAD. However, you still need to have the resources available to pay the vendor. Grants provide the best source of funding if it is not available within the institution's budget. In order to get funding through a grant though, you will need to provide justification for the outsourcing solution as well as demonstrate that this will be the first installment of a larger EAD program. Granting agencies do not want to fund projects that do not have some element of institutional sustainability beyond the life of the grant. An example of communicating this ideal comes through in East Carolina University Joyner Library's successful NC ECHO LSTA grant for outsourcing their legacy finding aids:

"By outsourcing the encoding backlog, Joyner Library staff can focus their resources on creating new finding aids directly in an NCEAD tagged format, and on enabling more EAD features than they had the time or

training to enable by the end of the 2001-2002 grant period. For example in 2002-2003, the project staff will assess the use of stylesheets (XSL) and XML indexing engines, and will set up web-based templates for the easy creation of new EAD tagged finding aids. To further build in-house knowledge and skills for advanced web implementation of the EAD tagged finding aids, this application requests funds to support advanced training.”

This kind of approach provides granting agencies with confirmation that the repository looks at the outsourcing as one part of a larger program, that outsourcing will allow the repository to allocate internal resources toward other aspects of the program that will benefit sustainability.

It is important when writing grant applications to be very clear as to where outsourcing fits into the project. Granting agencies do not typically want to extend funds to just “pay for” something; they are looking toward providing the resources that can serve as a foundation for something that will be sustained throughout the institution’s life time. Not only is it necessary to provide justification for choosing an outsourcing solution, it will be necessary to include information regarding the vendor you have chosen (see Choosing a Vendor below), expectations of completion of the outsourcing project, and where outsourcing fits into the larger program of EAD. Approaching an outsourcing project in a grant application as one step, not a continuous process, is often wise. It communicates to the granting agency that this aspect of the project will not have a continual need for resources garnered from external sources. Granting agencies are not signing on for life, they are just giving you a leg up, some “start up cash” to get the program off the ground. It will be up to you, in your grant application, to communicate that expectation effectively.

Are my needs similar to institutions that have used outsourcing?

Surveying other institutions, both local and out-of-state, can provide a wide array of information. You can learn both what vendor they chose and why, their experiences working with that vendor, the lessons they have learned in embarking on an outsourcing project, and the pitfalls that should be avoided in a new outsourcing project. Each institution will have a relatively unique perspective on how outsourcing will work effectively for their institutional structure. However, it is possible to extract similar approaches from communicating with other like-institutions. In doing that, we all will avoid making the same mistakes, and therefore should be able to create a collective knowledge on the programmatic aspects of EAD.

Speaking with other institutions will also provide a good framework for justification in outsourcing grant applications. Providing justification for your choice of vendor, as well as understanding what your expectations can be of staff time commitment and knowledge will give you a head start in writing realistic goals and objectives for your grant application. Many unsuccessful grants suffer from unrealistic expectations or conversely short-sighted expectations for an individual project. Institutional experience can provide the information that will be necessary to create a solid plan for the conversion of your finding aids.

Establishing an EAD Team

One of the crucial aspects of any successful EAD program is the establishment of an EAD team. This section deals with the different aspects of the team approach, including recommended team members and their individual roles in the outsourcing project. This includes a complete understanding of your current institutional workflow, training expectations, and publishing expectations.

The “team approach” provides long-term sustainability and decreases the impact that an outsourcing project can have on any one staff member. It disperses the knowledge of the project among several individuals not only for their own roles but also for the life of the project. Many projects have suffered from the loss of a staff member, particularly if that staff member has sole ownership of the project and all of the structural information regarding the project. Remaining staff members would be forced to reconstruct what has happened from little or no information. Therefore, establish a “team” to address your outsourcing project. Individual roles should be clearly defined and as those roles change, they should be documented. Ideally, someone should be able to step in and fill a role when needed for using this documentation.

Three recommended members on the EAD team:

- Team leader – the staff member who oversees the project and works to coordinate all the parts. Recommended that this individual be the primary vendor contact, oversee the various processes, draft grant proposals, etc. It is not recommended that an outsourcing project is constructed by someone and then “handed-off” to someone else to lead.
- Curator or processing supervisor – the staff member responsible for the current production of arrangement and description of collections. Even if the processing supervisor will not be directly involved in the retrospective conversion

project, coordinating the outsourcing of EAD and new generation of EAD will assure consistent application of the encoding standard.

- Technical advisor or systems person – staff member who can serve as advisor and consultant on technological aspects of the project, from downloading software to parsing and publishing EAD documents to XML indexing solutions. Technological support is essential for this technology-heavy metadata standard.

Other possible team members can include processors, web designers, and catalogers. Each individual will bring their own expertise and interest, and if taken through a team approach, institutions can benefit from these kinds of insights when making encoding and publishing decisions. Not all institutions will have the numbers to assign various aspects of the EAD program to various staff members. This is merely meant to demonstrate the different roles that will be necessary to fill, even if one person fulfills more than one role.

In addition, it is important to establish a good working relationship with your vendor. Typically, you will have a contact that will become your partner in the outsourcing project. When assessing the appropriate vendor, be sure to ask how the communication structure works between the vendor and its clients. Open lines of communication and effective communication can be two of the most important aspects of an outsourcing project. If you are not communicating with your vendor or you feel you don't know what they are doing in regard to your project, it can be a sign that the project has been derailed. Communication exists on two fronts, though, and you also have to establish a system of communication from your EAD team to the vendor. Establishing a protocol for communicating with the vendor will decrease crossed signals and miscommunication. It is recommended that the vendor representative meet with the team initially in person or by speaker phone, but that once those introductions are complete that a communication protocol be established and communicated to the vendor so that all expectations are fulfilled.

Another part of the “team approach” is the establishment of good documentation procedures. Understanding the various tasks involved in constructing a successful EAD program should help in the documentation process. EAD itself provides room for documentation within an individual EAD instance for any information pertaining to that document. However, assuring that good documentation takes place will take vigilance on the part of the team leader. From encoding decisions to

system features, documentation will assure longevity and sustainability for an EAD program. It will also assure compatibility between outsourced and in-house encoded documents.

Vendor Selection

Vendor selection is another crucial aspect of the outsourcing project and has been alluded to in other portions of this document. This section details the kind of questions that should be addressed to a perspective vendor. Before approaching vendors, though, it is recommended that one speak to other institutions that have conducted outsourcing projects and are familiar with the vendors they have used. Before embarking on any outsourcing project, each institution asks questions of vendors and therefore experienced institutions will be able to provide valuable insight into the questions that are appropriate to ask and those that yielded misleading information.

In addition, regional and national organizations, such as Research Libraries Group (RLG), provide information about vendors on their websites. Assessing a vendor's reputation in the larger framework will be informative and can provide not only necessary company information but will also provide a framework for opening discussions with vendors. Knowing what a vendor has offered other institutions and state-wide or national organizations will give your institution a better sense of negotiating with the vendor. The project team will learn what they can expect from a vendor in terms of product and process as well as be able to frame the cost within concrete guidelines.

It is recommended that a vendor be selected prior to the submission of a grant application, if that is how your institution is going to be funding the outsourcing project. Demonstrating a relationship with a vendor will strengthen the grant application. This can be achieved through:

- Discussion of why you chose this vendor, other institution feedback can be crucial in this.
- Concrete cost projections based upon agreed upon pricing.
- Commitment from your institution to do the project by investing staff time in negotiating and communicating with vendors and other institutions prior to submitting the grant application.

Each of these three aspects should be included in a “vendor selection” portion of your grant application.

ACT II: Outsourcing your Guides

Establish a Contract with the Vendor

The first step will be to finalize your contract with the chosen vendor. This contract should include an agreed upon rate of charge, usually defined as per kilobyte. If your repository is using grant money to finance an outsourcing program, the grant will include a maximum expenditure amount and a grant completion date. This information can be used in consultation with the vendor to approximate how many pages of finding aid guides the vendor will be able to encode within the agreed-upon rate. Before finalizing this calculation, the vendor will need to see a sample finding aid.

ECU's experience: We miscalculated how much the rate of charge would end up being per page of finding aid guide. The actual rate was \$.87/kbyte which translated into about \$3.00 per page. The vendor told us to plan for \$6.00 per page. After submitting our grant proposal, we found that \$6.00 per page is the maximum our vendor experienced with other institutions. The vendor offered to convert a sample for us at no charge in order for us to better gauge the cost for our finding aids. Your rate per page will depend on your content. Some kinds of content are more encoding intensive, resulting in more keystrokes (more kbytes).

Standardization

Once an agreed-upon rate has been established, refer to the "Needs Assessment" of the finding aids that was made when your repository was deciding whether to outsource the encoding of legacy finding aids. If the decision is made to pre-process changes in the interest of consistency in style and format, then making these changes is the first step towards preparing the guides to be encoded.

ECU's experience: In the interest of time since we were paying for our outsourcing with grant money that had to be used by a certain date, we chose to address most of our inconsistencies through documented tagging conventions which we sent to our outsourcer, or through post-processing. We did make some changes in pencil on the paper guides such as marking out information we had included

in our earlier guides, but had stopped including in our more recent guides. We also told our outsourcer to ignore certain parts of the finding aids that we would post-process ourselves. This was easier in some cases than trying to develop a tagging convention that would adequately address inconsistency problems.

Coversheet

Outsourcing vendors may require a coversheet to be provided for each guide. The coversheet ensures the EAD header is tagged properly and creates the title page. Information usually required in a coversheet includes the official name of the institution and of the publisher of the finding aid (if they are different), institution contact information to appear on the title page, repository code, formal name of the finding aid, formal name of the collection and the collection's unique identifier, predominant language of the finding aid, and author(s) and date of the finding aid. Go to http://lcweb.loc.gov/cgi-bin/zgate?ACTION=INIT&FORM_HOST_PORT=/prod/www/data/z3950/octr05.html,rs20.loc.gov,8210&CI=154830 to discover what your repository code is.

Coversheet samples:

<http://www.rlg.org/rlgead/coversheet.pdf>.
<http://www.lib.ecu.edu/SpclColl/ead/tagging.html#L18>.

In order to manage the coversheet production for finding aids, it is recommended that institutions use a management program such as a spreadsheet or database. The advantages of a program like Access are that reports can be generated that fall within coversheet specifications such as tracking which finding aids have been sent to the outsourcer.

Tagging Guidelines

In order to be consistent with NCEAD, base your institution's local practice guidelines on the guidelines established at: <http://www.ncecho.org/ncead/documents/ead2002/bestpracticeguidelines.htm> The NCEAD guidelines have been established through a review of the EAD 2002 DTD, RLG's Best Practice Guidelines, and the existing NCEAD Version 1.0 Best Practice Guidelines. While the NCEAD Best Practice Guidelines provide a generalized template for the application of

EAD for North Carolina's cultural institutions, institutions need to make specific decisions on the use of tags in their own implementation. These decisions need to be communicated to the outsourcer in the form of local encoding guidelines that can be followed for the application of tags on the finding aids. In addition, tagging decisions need to be recorded for consistent use throughout an institution's EAD application.

ECU's experience: The development of the "ECU's NCEAD Retrospective Tagging Conventions" began during our in-house EAD workshop and continued throughout the entire outsourcing process. We compared our tagging conventions to those of NCEAD's Version 1.0 Best Practice Guidelines to assure consistencies with other participating institutions. Our tagging conventions document can be accessed at <http://www.lib.ecu.edu/SpclColl/ead/tagging.html>.

Convert a Sample Finding Aid

It is strongly recommended that before sending a large batch to the outsourcer, the institution asks the vendor to encode a sample of guides in order to assure that the tagging guidelines sufficiently meet the needs of the institution and that appropriate tags have been selected for the finding aids. This process will also help to uncover any unforeseen problems on the part of the outsourcer when encoding the finding aids. This may result in changes to tagging decisions, the need for more specific instructions, or stylesheet changes.

Optional: Handwritten Tags

After studying the sample encoded finding aid guides carefully, the project team may decide to mark some tags themselves. This can be especially useful when areas needing to be tagged are not easily identifiable for the outsourcer. In addition, it may be decided to add in more tags than originally planned or change the use of some tags.

ECU's experience: Our finding aids did not have the distinctive Biographical or Historical Note provided for in the NCEAD template. We decided to have a paragraph from the narrative description tagged as <bioghist> with a heading of Historical Note. Rather than try to explain to our outsourcer how to determine which aspect of

the description to tag this way, we marked the paragraph in pencil with the <bioghist> tags ourselves prior to sending the finding aid to the outsourcer for processing. In some cases, the finding aid did not provide that information and rather than take the time to create the biographical or historical information prior to encoding, we left it out.

Batching

At this point you will either send your guides to the outsourcer electronically or in paper copy based on what your outsourcer prefers. Your repository will develop a schedule with the vendor regarding how many pages to send at a time and expected encoded finding aids delivery dates.

ECU's experience: Our outsourcer preferred to receive our guides in a paper format for re-keying by their employees. We made photocopies of our finding aids, inserted cover sheets and placed them in individual file folders. Normally we mailed 500 to 600 pages at a time. For our initial sample, we sent them 20 finding aids to be encoded. In the end we asked to have these 20 finding aids re-encoded to be compliant with NCEAD and this was done at no cost by the vendor. The finding aids were returned to us electronically as XML files, and after applying an XSL stylesheet, we were able to post them on the web as HTML and XML files.

ECU also made the decision to encode finding aids for unprocessed manuscript collections. Even though the information included was very basic, we wanted researchers to know we had these collections because we do allow access to most of our unprocessed collections. These finding aids included additional decisions for tagging, and those guidelines are included in the "ECU's NCEAD Retrospective Tagging Conventions" document (<http://www.lib.ecu.edu/SpclColl/ead/tagging.html>).

Examples of some explicit tagging decisions we made as a result of the sample finding aids and the unprocessed collections were:

- *Inclusion of encoding analogs for MARC records (specified in the current NCEAD template).*
- *Use of the <processinfo> tag to provide information about the status of processing for collections.*
- *Adjustment of labels.*
- *Our paper finding aids had identical geographic information mentioned at the beginning of the finding aid and in the*

*controlled vocabulary at the end of the finding aid.
Therefore, we opted to omit the geographic information at the
beginning of the finding aid and only apply the <geogname>
tag in the controlled vocabulary.*

In Summary

Successful outsourcing depends on:

- Standardizing and adapting your finding aids to modern practices as much as possible before outsourcing them.
- Developing comprehensive detailed local practice guidelines.
- Having a good basic knowledge of EAD so you can make educated tagging decisions.
- Maintaining a good relationship and effective communication with your outsourcing vendor.

ACT III: Post Processing Outsourced Data

There are three main kinds of post-processing that will be encountered in an EAD outsourcing project: 1) quality assurance, 2) one-time post-processing and 3) on-going processing.

Quality Assurance

Quality assurance is an essential aspect of all digital projects whether or not they are outsourced. When original source pages are received from the vendor as encoded text, the EAD team will want to perform a check on the accuracy of the vendor's digitization, on XSL rendering of the files, and on compatibility with institutional search engine indexing. A system should be in place to address the quality assurance (QA) process. Such a system may include the following elements: Preliminary QA, Spot QA and Full QA.

Preliminary QA

- Train QA staff.
- Download files from the vendor as batches are returned and make an archive copy of these files (so the version from the vendor is always available).
- Batch parse to ensure the files work with the DTD

- Batch application of XSL to the new XML files, in order for the QA staff to be able to check that the rendering is working as needed. (Note: Remember that HTML versions of finding aids need to include Dublin Core. This Dublin Core metadata may be cross-walked from encoding analogs that are in the EAD XML documents. For more information see *NCEAD Best Practice Guidelines Appendix D.*)
- Place the XML files and other format renderings (for example HTML and PDF) in a test location available to all QA staff.
- Add the new files to a test location search index.

Spot QA

- Spot check the batch for anomalies, if none are found proceed to full QA of each file.
- If anomalies are found in the batch, then
 1. Return the batch to the vendor (when the problem is due to the vendor not following your repository's guidelines), or
 2. Script changes into the batch (when the problem is internal - like having told the vendor the wrong tagging, or encountering a new feature in this batch - see one-time post-processing below), or
 3. Give special instruction to the QA staff (when dealing with a problem that is in one or a few finding aids,) or
 4. As an expert EAD spot checker, fix a simple problem encountered, and save it to the test QA location, overwriting the erroneous version.
- Vendor's mistakes and newly encountered undocumented features both require updating or refining the tagging conventions, in order to prevent future errors or provide more detailed information to the vendor (see on-going post-processing below).

Full QA

- QA staff proofread with both XML and other renderings available for this process. As the QA staff encounter typos, they are fixed, parsed, and saved, overwriting the version the staff was using.
- QA staff manually add/change any special encoding identified during the spot check.
- QA staff bring any issues encountered to the designated EAD trained archivist for resolution. If these issues require updating the tagging conventions, then the designated EAD archivist makes those updates and sends them to the vendor. If the issue is particularly difficult, the designated EAD archivist consults with

other experienced EAD staff or EAD users at other repositories to resolve the issue.

- After completing the QA process on a file, make a backup copy of the file.

ECU's experience: ECU's retrospective conversion project sent materials to the outsourcing vendor starting from the first numbered collection, and moved consecutively in batches through the numbered collections. Because the finding aids were written over several decades and because the subject matter varied enormously, the finding aids did not all follow one format. It was inefficient, with over 1,000 collections, to first read all finding aids and try to determine all special tagging needs in advance. Large repeating features were determined in advance to establish the basic tagging guidelines. Then as each batch of EAD tagged files was received from the vendor, there was an initial spot check of particularly unusual finding aids, followed by a thorough quality assurance process that included complete proofreading of rendered and raw XML.

Temporary staff, funded by an NC ECHO grant, included staff for this quality assurance process. ECU QA staff found the vendor's work very accurate: one character typo about every 10 pages of source text, which was significantly better than ECU's internal conversion test batch. After the initial test batch, which was used to work out the bugs in the local practices document, we never had to return a batch to the vendor. The vendor assured us that if a batch needed to be returned due to vendor error, then the batch would be reprocessed at no charge.

One-time Post-processing

The quality assurance process can reveal a need to change tagging guidelines used by the outsourcing vendor. These changes can stem both from finding aid structures not previously encountered and a clearer understanding of content control available in EAD mark-up.

ECU's experience: The one-time post-processing for ECU included:

- *The addition of encoding analogs (now present in the NCEAD template).*

- *Display issues related to the integration of a photographic archives database.*
- *The addition of external entities.*
- *The application of an internally developed script to extract MARC data for use with MARCMaker (<http://www.lib.ecu.edu/SpclColl/ead/marc.html>).*

On-going Post-processing

As mentioned above, there are a number of routine steps to be performed when each batch is returned from the vendor. These routines also include:

- The steps necessary to make files that have passed quality assurance available to the public and
- Update finding aids as new materials are added to a collection.

Because staff need to plan time for these ongoing post-processing activities, they are pointed out as a special topic in this section of the guidelines.

ECU's experience: Besides the on-going post-processing routines listed in the QA area above, ECU's on-going post-processing included:

- *Update abstracts and cubic feet each semester.*
- *Application of stylesheets to files that have passed the quality assurance process, including XML display, frames and non-frames HTML documents, and PDF versions of the finding aids.*
- *Add new/revised finding aids to the public access search engine server.*
- *Upload the new/revised finding aids to the public access web server.*

CODA: the Iterative Processes

Outsourcing is a viable solution for retrospective conversion of archival finding aids into Encoded Archival Description. There are some lessons, though, that have been learned by those who have experience.

Don't:

- Try to do outsourcing without obtaining help and advice from institutions that have already done it.
- Send the finding aid guides to the outsourcer believing that participation in the process has ended until the encoded files are received from the vendor. There will always be unanticipated questions from the outsourcer.
- Underestimate the amount of time this project will take away from normal duties.

Do:

- Train as many people as possible in EAD at your repository before becoming involved in the outsourcing experience so problems can be avoided and reprocessing or post-processing can be reduced or eliminated. This training will also help with the decision about how intensively to tag the guides.
- Take time, if at all possible, to discover and correct style and format inconsistencies in guides before sending them to the outsourcer.
- Be prepared to constantly address issues, throughout the outsourcing process, concerning the relationship between encoding and display, and how or whether to correct inconsistencies that will show up despite best efforts to root them out beforehand.

If XML is new to your EAD team, this may all seem daunting but with the help and support of NC ECHO and other repositories who have already gone through the learning process, local practice guidelines can be assembled step by step. The long life, navigability, and ability to participate in union access searching that NCEAD compliance gives finding aids is more than worth the upgrading of a repository's skills.

For information about training opportunities and support from NC ECHO Consultants, contact: Katherine Wisser, NC ECHO Metadata Coordinator (katherine.wisser@duke.edu) or call (919) 660-5913.