

DIGITAL IMAGING GUIDEBOOK

Supreme Court of Ohio Advisory Committee on Technology and the Courts

**Hon. John P. Bessey
Chair**

Guidelines and Publications Work Group

**Hon. Cheryl Grant
Work Group Co-Lead**

**Keith Wiley
Work Group Co-Lead**

August 28, 2007

Acknowledgements.....	4
Introduction.....	5
How to use this Guidebook.....	5
Chapter One: Imaging 101.....	6
How Imaging Works.....	6
Storage formats.....	7
What to image?.....	8
Chapter Two: Let’s Talk Legal.....	8
Chapter Three: Paper Documents vs. Electronic Documents.....	9
Pinning the tail on the original.....	10
Tracking is Key.....	10
What’s In a Name? Or: “I don’t think that means what you think it means.”.....	10
Chapter Four: Unique Considerations for Court Imaging.....	11
Privacy.....	11
Public Records Access.....	11
Tension.....	12
Records Retention.....	12
Retention: Not Just for HR Anymore.....	13
Chapter Five: Collaboration.....	14
Time-Sharing.....	14
Being the Tenant.....	15
Being the Landlord.....	16
The Bottom Line on Collaboration.....	16
Chapter Six: Costs.....	16
Storage Equipment.....	17
Input Equipment.....	17
Document Software and Setup.....	18
Chapter Seven: Licensing.....	19
Chapter Eight: Why is Integration Important When Considering an Imaging System?...	21
Further Integration Considerations.....	21
Chapter Nine: Outside Assistance.....	22
Chapter Ten: Standardization of Your Data Elements.....	22
Chapter Eleven: Scanning and Indexing of Court Documents.....	23
In-House Processing (Court/Clerk of Court).....	23
Offsite Processing.....	23
Chapter Twelve: Imaging and the Internet – A Match Made in Tartarus.....	24
Chapter Thirteen: What Documents Should a Court Capture?.....	26
Chapter Fourteen: Redaction.....	28
Chapter Fifteen: Staffing.....	29
Chapter Sixteen: Quality Control: Get it Right the First Time.....	30
A Picture is Worth a Thousand Words.....	31
A Place for Everything, and Everything in its Place.....	31
The Bottom Line on Quality Control.....	32
Chapter Seventeen: Business Continuity/Disaster Recovery.....	32
Chapter Eighteen: Supporting the Process.....	33

Dear Colleagues:

With every action our courts take, we create a history that is vital to the entire judicial system.

Our history sets precedent for pending and future court cases throughout Ohio and our nation. That same history is defined by the documents we collect, create, distribute and store. Since being admitted to the union in 1803, we have accumulated a vast collection of documents and continue to do so every day.

We have reached a point where today's technology of digital imaging will serve the courts of Ohio in a myriad of ways. Digital imaging of documents will:

- Provide each court with electronic records of case-related documents,
- Will be easily transportable to other members of your court, and
- Will be readily available to appropriate individuals throughout Ohio's judicial system.

The anticipated gains of initiating digital imaging will result in greater accountability for our courts and increased security, speed, and accuracy for our judges with a click of a button. However, there are many issues that need to be considered at the outset.

This guidebook serves as a starting point in identifying the components of a qualified Digital imaging system and considerations for creating a budget. Procedurally there are sections that will aid you in developing an accurate scope for your individual projects. When and where to start imaging, redaction, staffing issues are but a few of the areas covered. Important ongoing considerations are privacy and maintaining the integrity of the intellectual property of your courts. This guidebook offers processes for your current and future considerations.

Our documents are the backbone of our judicial history and will continue to serve as a foundation for future judicial actions. It is imperative that we use technology to aid us in effectively managing over 200 years of critical documents.

As always, our technical staff here at the Ohio Supreme Court is available to you by phone, email or by appointment. It is our intent to give you guidance as you create your digital imaging projects.

Personally, I find it exciting that Ohio courts are taking such great strides in improving our court systems and management of documents. Our future looks bright.

Thomas Moyer

Acknowledgements

This guidebook was produced through the work of the dedicated volunteer members of the Guidelines and Publications Work Group of the Supreme Court of Ohio Advisory Committee on Technology and the Courts.

Hon. Cheryl Grant, Co-Lead
Hamilton County Municipal Court

Keith Wiley, Co-Lead
Subject Matter Expert

Dennis Archer
Wayne County Clerk of Courts

Rob Berger
Office of Disciplinary Counsel

Michael Bracken
Rocky River Municipal Court

Keith Fournier
Lucas County Information Services

Bonnie Junkin
Wayne County Clerk of Courts

Will Nuzum
US Department of the Treasury

Jonathan Politi
Attorney at Law

Greg Shrader
Gallia County Probate Juvenile Court

Henry Stacey
Hamilton County Clerk of Courts

Jim Walsh
Geauga County Common Pleas Court

Matthew Whitecar
Portage County Information Services

Dan Willis
First Class Events

Robert Stuart, Director, Information Technology Division
Supreme Court of Ohio

This and all other standards developed by the Advisory Committee on Technology and the Courts are available online at the Supreme Court of Ohio website, www.supremecourtofohio.gov.

Introduction

Further into the dank cellar, the intrepid pair crept. Sifting through countless boxes, hidden recesses in the walls and moldering crypts, they searched for the object of their quest. Suddenly, as the flickering torch was about to sputter out, a non-descript piece of parchment was pulled from its hiding place. “Aha!” said one clerk, “we finally found that 20-year-old speeding ticket the newspaper has been wanting to see.”

Imaging is akin to the weather, a project that everyone talks about, from time to time, but doing something about it is an entirely different story.

This guidebook is intended to do several things. The one thing it is not intended to do is say “You must embark on an imaging project.” We will explain what imaging is, and what it is not. We will list the challenges that it will solve, and the new challenges it will create. We will talk about the changes you should consider making in how you handle “paperwork” and what to think about when the paperwork is no longer paper. We will discuss the other things that you need to consider to have a successful imaging project and ongoing imaging process. For there is the rub, as it were. You embark on an imaging project, but you have changed how you and your employees and constituents will deal with court records from now on. You begin a process where, like Dorothy, we can say that we are not in Kansas anymore.

However, whether or not you decide that an imaging project (or document management or electronic content management) is right for your organization, there are two truths we can tell you. It will never be cheaper to do an imaging project than right now and the backlog of documents to be imaged will never be less.

So, we ask that you examine this guidebook and we hope it is helpful in your decision making process. Herein are collected best practices, definitions, pitfalls that others have encountered and ideas to consider when you start talking about whether or not an imaging project is right for you and your organization.

How to use this Guidebook

The purpose of this guidebook is to assist courts in assessing their needs for and understanding key issues surrounding the development of an imaging project. It contains information that reflects the real life experiences of experts and Ohio courts who have already implemented an imaging project. This collection of knowledge and experience will assist you in understanding the risks and advantages of an imaging project and help you make the right decisions for your court.

This guidebook is divided into chapters that provide details regarding the major issues raised by a court imaging project. These chapters cover a wide variety of key topics, including equipment, privacy, costs, indexing, redaction and quality control. Chapters are also divided into subheadings to provide more specialized detail. Provided are examples, anecdotes or more detailed information on a specific subtopic.

The structure of this guidebook is designed to present the process of planning and implementing an imaging project for court personnel who have not previously done so. The guidebook is laid out to present the decision-making process from thinking about an imaging project through acquiring the staffing and skills to implement an imaging project for your court. In each section, you will find a discussion of the core issue, recommendations for local policy, and in some cases, resources.

Please remember that this guidebook is simply that -- a guide. Imaging technology is constantly evolving. As such, you must be prudent in your decision making and use this guidebook as the starting point for your own personalized assessment of imaging.

Chapter One: Imaging 101

An imaging system creates digital images of paper documents in an easily searchable format so they can be preserved and accessed. To begin with, we'll talk about how you should image, what format(s) you should store your images in and what you should image.

How Imaging Works

No matter what format you choose to store your images in, the creation of the images is either a matter of taking a photo image of the original document or scanning the document.

Scanning is the process of moving a finely focused beam of light or electrons in a systematic pattern across a surface to produce an image. Photography is the art or science of producing images on photosensitive surfaces. While the end result is the same, the process by which they arrive at that image is very different.

When an image is scanned, the device creates an image from what its sensing beam of light determines is on the surface being scanned. When you photograph the surface, the image of what is visible to the camera/device is transferred to a photosensitive medium. If you are using film to record the photo, the film is that medium. If you are using digital media, the photosensitive medium is in the camera itself and then the image is transferred to permanent storage media from the camera.

Scanning lends itself to an automated process, with high-end scanners coming equipped with page feeders. Photo imaging is more appropriate when the original media you are imaging is in a format that cannot be fed through an automated process, such as old docket books and other items that cannot be loaded onto a scanner easily or safely.

Storage formats

With imaging for courts and clerk of courts' offices in Ohio, microfilm/microfiche is the "gold standard." As of this writing, the only accepted standard for long-term storage of court documents is microfilm/microfiche. There are two reasons for this. First, microfilm/microfiche is the only proven standard that we know will last in excess of fifty years. The experts say that digital images should have an equivalent half-life, but this has not yet been proven. However, we know that microfilm/microfiche from the early part of the twentieth century is still viewable.

Second, microfilm/microfiche is what is called a "terminal" technology. Microfilm has not changed significantly in format or the technology used to display it over the past few decades and there is no reason to believe that it will disappear anytime in the foreseeable future. Even without specific technology, the images on microfilm/microfiche can be viewed using a strong light source to project the image on a suitable surface.

Digital images, however, are highly dependent upon the supporting technologies that store them and translate them for display on a screen. Regardless of what digital format the image is stored in, the first problem is whether the media will be accessible in the future. Just in the current lifetime of personal computers, the 5.25 disk has disappeared from use and the 3.5 floppy is poised to follow its technological cousin into the historical bit-bucket. DAT tape drives have followed the passenger pigeon into the shadows, CD-ROMs are being supplanted by DVD-ROMs, there are more formats of DVD technology available, and new formats are coming. USB flash drives are becoming ubiquitous, but are they long-term storage formats? Optical storage arrays are replacing the traditional hard drive storage arrays, but all of them are susceptible to becoming technologically obsolete as operating systems, drive formats, and manufacturers change at the speed of light.

On the other side of the coin, digital storage formats have several advantages. They can be indexed and searched quite easily so you can find the document you want, especially if you are not sure what case it is attached to, and they can be accessed by multiple parties simultaneously, whereas whoever has the microfiche reel has the file. Digital formats require a higher level of due diligence in that you must continuously check to make certain that you can access the digital files you have imaged and that the files, when accessible, are usable. As technology progresses, files will have to be upgraded and moved to ensure they will continue to be able to available.

Practically, an imaging project will employ both formats. Current technology makes it very easy to transfer digital images to microfiche/microfilm so that in 100 years, someone will be able to find the original documents from their great-great-grandparent's marriage.

If you have existing microfilm/fiche, consider using that as a source for your digital images, rather than going back to paper originals, which can be hard to handle or may no longer exist. Note, however, that expungements or sealings could make the microfilm/fiche record incomplete or contain records that should no longer be accessible.

What to image?

The answer to “what to image?” is complex. It is easy if you image every document, but it is more complex if you select which documents to image. You can do usage studies, get exhaustive legal opinions on your document retention policy and seek expert opinions on which documents you should image and still not be certain what you should or should not retain.

The safest, simplest answer is “everything”. If it is a piece of paper that has any bearing on the case or casefile, image it. No matter what you decide to exclude, someone will think it is significant, and in today’s overly litigious culture, they will see sinister and actionable motives behind a decision not to include something. With the cost of digital storage media and microfilm processes dropping, it will cost you more to get a legal opinion to explain why you did not need to keep something than it would have to store that something in all of your files. Unless the law specifically prohibits keeping something in the public record, image it. This also goes for the “How far back do I go?” question. If you have the paper records sitting around, image them and get them out of your hallway so your clerks and deputy bailiffs can stop tripping over them.

Chapter Two: Let’s Talk Legal

When purchasing equipment, materials, software, hardware, personal and design services- remember that a promise or performance may have legal ramifications for all parties.

Caveat- the primary key for success is to get your county, city, township or village attorney involved in the planning, specification, bidding or request for proposal and negotiation stage early on in the process. **It is too late to bring in an attorney after you made the contract, purchase agreement, or lease.**

Seven Keys To Success

Key 1. Engage legal counsel who has experience in intellectual property, contract, and government law. Before you get started, ensure that you understand bidding and RFP processes, and other purchasing methods.

Key 2. Know your governmental organization structure. Charter rule municipalities have the broadest powers of self-government.

Key 3. Remember vendors seeking to do business with government agencies are on constructive notice of the statutory restrictions on the powers of government agent to form a legal, binding contract. In other words, vendors seeking to do business with your court are under an obligation to know the federal, state, and local law.

Key 4. Make sure the person approving a vendor's contract has the proper authority to enter into such agreements.

Key 5. Develop a purchasing manual guidebook for your purchasing agent or department. Your court purchasing rules will apply. You should include regulations governing the use of gift, loaner, trial and demo software, hardware, supplies, materials, labor, and other services.

Key 6. Establish a contract compliance officer to manage the execution of the contracts during the life of the contract and its review and renewal. Annual review is important.

Key 7. Answer this question during negotiations: When it is all said and done-who will own the personal property i.e. data, design, or processes?

Chapter Three: Paper Documents vs. Electronic Documents

In an imaging project, it does not matter whether an image started off as a paper document scanned into the system, or a word processing attachment uploaded to the court's system, or an e-document created by the case management software. All three can be stored, retrieved, and, to some degree, manipulated within the system to serve the needs of the court, clerk's office and the general public. In a court environment, source does matter. The ability to track how an image entered the system is important and should be considered.

Paper documents are just as susceptible to alteration and forgery as digital documents, but because people can hold them in their hands, they feel more like a real document. The legal system is built around pieces of paper such as that, and the traditions and practices of the system seem to expect paper. People are served with notices, judges sign warrants, birth and death certificates define the extent of our corporeal existence. And yet, with a relatively inexpensive scanner, desktop publishing software, and a decent home printer people can create altered copies of documents that affect the lives and livelihoods of anyone they choose. Paper and digital documents both require appropriate safeguards to verify authenticity.

A document in a court case may exist solely as an image on a computer screen, but its origins may be important. Is there an "original" somewhere that corroborates what the document on the screen shows? Is there a file on some computer somewhere that matches what is being considered? Or was it created from an online form and only exists in the format we currently see?

Pinning the tail on the original

One thing that any imaging project requires is for the court to define just what are the effective originals that the court will use in its operations. While the American judicial system is defined as “adversarial”, without a clear idea of what is the effective original, adversarial will give way to confrontational chaos as each and every document and image will be debated and litigated *ad nauseum*.

Tracking is Key

Metadata is, simply, data about data. A library card catalogue is, in essence, metadata since it is the index of all of the publications that the library houses. With regards to an imaging project, there must be some way to track information or data about each image: Where did the image come from? Where is the image? What has been done to it? In some cases, “who” has accessed it is also a relevant piece of information that should be tracked. All of these questions should all be considered. Your system should be able to tell the user what they need to know about every image in the system. If it cannot, then questions will arise about the image’s authenticity and history.

What’s In a Name? Or: “I don’t think that means what you think it means.”

File naming conventions have come a long way from the naming conventions that DOS and early versions of Windows imposed upon personal computer users. In most imaging processes, while the file name will have some meaning to the system, it will not necessarily be decodable to someone looking at the file name. If the image is created as part of your Case Management System, then the naming convention will fit into whatever format that your CMS has for naming associated files. If the image is one that was scanned in and added to the system after the fact, then it will, most likely, be a sequence number that will identify when and how it was created. It may incorporate the case number of the associated case.

And herein lies the problem. It is a natural tendency for people to attempt to impose order that makes sense to them on the objects that we manipulate as we perceive them, and for files that is the file name. While the file name, in conjunction with the metadata regarding the file, will provide information regarding a particular image, the file name itself will probably not differentiate between scanned and created images. A good rule of thumb to remember is that file names are **not** the digital equivalent of the Dewey Decimal System. While Melvil Dewey’s invention will tell us volumes regarding the books it catalogues, file names merely provide a unique identifier for an image.

Chapter Four: Unique Considerations for Court Imaging

When considering imaging solutions in a governmental entity, such as the courts, as compared to the requirements found in private enterprise, a few differences emerge. The primary areas of consideration are privacy, public records access, the tension between these two, and finally, records retention.

An imaging vendor has expertise in dealing with privacy concerns from a corporate aspect. However, the rules regarding privacy and public access in the corporate world are far different than those in the public sector.

Privacy

The pressure is on the public sector and on private enterprise to protect the privacy of personal information, as reflected in legislation such as the Health Insurance Portability and Accountability Act (HIPAA - 1996), Sarbanes Oxley (SOX - 2002), and The Gramm Leach Bliley Act (GLB - 1996).

However, the “eyes of the media” will be trained primarily on the public sector to ensure compliance. This is a daily reality in the public sector, without comparison in the private sector.

In an attempt to satisfy public records requirements, some offices routinely violate privacy provisions by allowing local, visual access to paper court records containing restricted information, and in so doing, compromise the privacy of those individuals referenced in the case files. With the addition of an electronic content management or imaging system, such violations will be amplified.

Furthermore, legislation provides for damage findings against those who violate privacy protections.

Public Records Access

Public records access has been a part of life in Ohio, and is being given teeth in the soon to be effective “Substitute House Bill 9”. As of the writing of this guidebook, there is some debate about the extent to which this bill will directly affect the courts, but additional court rules on privacy and public access will likely be forthcoming.

Although the courts are specifically excluded by the language as well as questions of the legislature’s authority over the judicial branch, the principals set forth in this bill will no doubt bleed over into the judicial records arena. This bill has provision for court costs, attorney fees, and damages findings against the public official failing to provide requested records.

- *Sec. 109.43 – "Elected official" means an official elected to a local or statewide office. "Elected official" does not include the chief justice or a justice of the supreme court, a judge of a court of appeals, court of common pleas, municipal court, or county court, or a clerk of any of those courts ... Sec. 149.011 – As used in this chapter, except as otherwise provided:(A) "Public office" includes any state agency, public institution, political subdivision, or other organized body, office, agency, institution, or entity established by the laws of this state for the exercise of any function of government. (B) "State agency" includes ... any court or judicial agency ...*
- *the person allegedly aggrieved may commence a mandamus action to obtain a judgment ... awards court costs and reasonable attorney's fees ... fixing statutory damages ...*

Tension

There is a natural tension set up between privacy concerns and public records requirements. Although this tension specifically and uniquely exists in the public arena, similar issues are faced in private enterprise as portals are developed to allow customers / subscribers / patients access to their own records while at the same time protecting their records from unauthorized access. This is further complicated by allowing access to selected authorized persons such as doctors, brokers, and accountants.

Records Retention

Court records are governed by a records retention schedule.

In private enterprise, few records are kept forever. Some are – records of incorporation, stockholder records, patents, copyrights, bills of sale, contracts, letters denying liability of the company, and quality control and inspection test records, to name a few. Others are retained for extraordinary periods of time – Occupational Safety and Health Administration records, for example, must be retained for thirty years.

In most cases the records retention schedule of a common pleas court indicate that the records are to be retained indefinitely – that is, “forever”. The same holds true for a municipal court, with some exceptions –

- Civil case files – two years,
- DUI case files – fifty years,
- First through fourth degree misdemeanor traffic – twenty-five years,
- Criminal case files – fifty years,
- Minor misdemeanor traffic and minor misdemeanor criminal case files – five years,
- Parking ticket records – until paid,
- Search warrant records – five years.

These amounts are accurate as of 2007 – for additional information on retention, see Superintendence Rule 26.

There are additional restrictions on these governmental records being “eye readable” which has generally been interpreted to mean that the archival records must be in microfilm or microfiche and not stored electronically, although this has come into question in recent years.

Retention: Not Just for HR Anymore

One of the benefits of an imaging project is you get to wave goodbye to all of those file cabinets, bankers’ boxes and other assorted containers sitting around your courthouse with all of the paper files in them. While all of the traffic tickets written in a jurisdiction for a particular year might take up yards and yards of shelf space with paper folders, reduced to their component pixels they take up a couple of gigabytes of space on a hard drive tucked into a server somewhere. Discrete, out of the way, easy to store, not likely to catch fire or be infected with anthrax, digital records are the dream of every keeper of the record. And therein lies the trap that is going to catch someone unaware.

The reason that we have retention schedules is not to limit the lookback of public records or anything altruistic in nature. The original reason for retention schedules was to keep the keepers of public records from being crushed by the sheer weight of the records produced. The advent of the computer age and imaging has accomplished two things that were lacking under the old paper systems. We can now keep everything and, if properly indexed, we can actually find and maintain it in a timely fashion.

If a court is going to keep “everything” “forever,” remember the flip side of that. People can ask for everything, forever. The public records laws, rules of superintendence and your local retention schedule may state that you only have to keep paid waivers for a specific period of time. If you still have them on your system past that date, then a records request means that you are required to provide the records. Here are some suggestions that will make the process a bit easier to manage and maintain:

- Create a retention schedule, and make it public. This lets everyone know what you’re supposed to have on hand. It will reduce, but not eliminate, some of the requests for things that you don’t have anymore.
- Know what you have, and where it is. You and your staff need to know what is available, either live or offline, and how to access it. This includes items you keep in a safe place for disaster recovery or business continuity purposes.
- Keep track of what you do not have, and make it public. It might seem a bit redundant, but along with your retention schedule above, posting a list somewhere of what has been moved out of live files to archive and what has been shredded and deleted will help interested parties in knowing what they can expect to have access to.
- And finally: If you still have it after it is supposed to be gone, let them have it. This can not be said too many times. If you have a public record, even if it should

have been shredded or deleted, it is still a public record. This is especially true of records or images that “turn up” on an old backup tape that is offsite as part of your disaster recovery or business continuity planning. The obvious exceptions to this are records or images that have been expunged or sealed. That status trumps their existence on a backup tape(s) or database somewhere.

Imaging projects are designed to make life easier for all concerned. As long as you remain aware of the differences between dealing with paper and pixels, and do not allow the convenience of not having to trip over boxes and boxes of paper records to cause you to forget that everything has a life cycle, it should be a great experience.

Chapter Five: Collaboration

Imaging projects can require investments in infrastructure and equipment to make them successful. If several agencies are contemplating or implementing imaging projects, it does not seem to make fiscal sense for each agency to invest in equipment that is identical in function to the equipment purchased by the other agencies, especially if the equipment will not be used at its full capacity by each agency. While the discussion here focuses on the shared use of equipment and resources by multiple agencies regarding imaging, the same rationales, both pro and con, can be used for any other technology project(s) that involve sharing the use of equipment, resources and personnel.

Time-Sharing

The classic example of a time share is where multiple persons or organizations share the ownership of an asset that each of them is only going to have need of for a limited amount of time on a reoccurring basis. While most commonly thought of in the area of vacation properties - one is not on vacation the entire year so it might be considered “wasteful” to own the property full time and be responsible for 100% of its maintenance and overhead - it also is becoming an answer for capital investments for items such as corporate aircraft and physical facilities.

In these situations, there is a third party player that manages the asset, arranges for the shares to be distributed and coordinated, and maintains the asset so all of the “owners” have access to it in a timely and equitable manner. What this is, in essence, is the establishment of a separate agency whose *raison d’être* is to provide a service or services to the other agencies, and they, in turn, support this agency out of their own budgets, either through annual support or contracted bill back for services.

This is collaboration at its highest level and, in essence, takes the process out of the direct hands of the agencies that began it and creates an agency or authority that now controls the process. This is currently seen, most often, in the public and academic arenas, in the area of mail. Instead of each agency maintaining its own mailroom and dealing with the post office regarding postage and other costs, a unified mailroom either collects or

receives all of the outgoing mail from the various partners that utilize it, organizes that mail for the most cost effective distribution and passes it on to the post office. From the academic world, the campus copy center or bookstore is also an example of this business model.

There are several positive aspects of this sort of arrangement. Each agency can benefit from an economy of scale that would not be available to them on an individual basis. Someone else has the headache of purchasing, operating, and maintaining the equipment necessary for the process. They are also responsible for the personnel needed to accomplish the tasks. Your court's part of the process is limited to providing the raw material of documents to be imaged, receiving back the finished product, and paying for your part of the operation, either a pro-rata share of the costs or costs on a per piece basis. This arrangement also provides a single point of accountability for the process.

A drawback to this business model is that you have, in essence, created a business with yourself and several other agencies as captive customers. The imaging center takes on a life of its own (visions of Dr. Frankenstein shrieking "It's alive!" over the height of the storm...), with its own priorities and concerns with your agency as a captive provider of the resources to make it go. And unlike an outside contractor, an internal provider has a vested interest in maintaining the status quo of another agency under the county or municipal jurisdiction. Another potential drawback to sharing equipment is that you are *sharing* equipment with others, and you might have to wait in line.

Note: Be sure that the independence of your court is not compromised by your time-sharing arrangements with other agencies.

Being the Tenant

In this model, some other agency has an imaging process and they are not using the full potential of their equipment and staff. Piggybacking your process onto theirs makes sense. Both of you, or multiple courts and agencies, can achieve an economy of scale by having more that needs to be done, your court does not have to worry about the purchase or maintenance of specialized equipment or consumables, and you do not have to provide for the care and feeding of the technical personnel that make the system run. Your court is on a "pay as you go" process where your costs are limited to just the, hopefully, reasonable cost per image rate that you negotiate with the agency providing the service to you. Since they are another public agency, they understand the restrictions that you operate under. You draw up a service level agreement (SLA) that defines everyone's responsibilities.

This process has a couple of potential drawbacks that need to be considered. The first is the inevitable universal law that states that work will expand to fill the time (and resources) allotted to it. Also, every agency gets a bit busier every year with what they need to do. The slack in the processing capability of the other agency begins to slowly erode over time and eventually there will not be enough time to do both their work and

yours in a timely manner. Whose imaging materials are going to be at the end of the production queue? While your agency is, arguably, assisting them in paying the bills for the process, it is still easier to tell someone else's customers that things are running behind rather than your own. Political, budgetary and other conflicts have been known to creep into the level of support that agencies provide to each other and this can impact how things are done. Even though you have drafted a finely tuned SLA that defines how the process is supposed to work, enforcing one against another public agency is an entirely different story than with a supplier or consultant.

Being the Landlord

This is the obverse of piggybacking on someone else's process. Here, you have the process going and other agencies approach you regarding using some of your "excess" capacity for a nominal fee. As any judge or magistrate who has ever spent a day in civil or housing court can tell you, these relationships can get "messy". Yes, your agency can pick up the slack in your system and be reimbursed by billing the other agency for the work done. However, the responsibility for maintenance and meeting production goals becomes more important and any mistakes or miscues that occur in the processing of the other agency's materials become the fault of your process, whether they were or not. Also, it is very easy to get left in the lurch by planning a system expansion to take into account both workloads and then find out your "client" agency has found someone else to do the work. Enter into this arrangement with care.

Note: Whether a tenant or a landlord, there are issues of ownership, maintenance, licensing and accountability that should be reviewed by a contracting expert.

The Bottom Line on Collaboration

There are reasons to look at collaboration as a positive thing. Achieving an economy of scale, increased efficiency, and saving public monies are just three of them. All of these are good and worthwhile and need to be addressed. However, collaboration puts your court and process at risk because you are now dependent upon the ability of someone else to perform duties and responsibilities at the level that you think appropriate. Enforcing service agreements on other agencies is always a challenge. Remember the words of Niccolo Machiavelli, "Put not your trust in princes, bureaucrats or generals, they will plead expedience while spilling your blood from a safe distance."

Chapter Six: Costs

Your imaging project will have various associated costs which can be broken down into the following categories: storage equipment, input equipment, document software and setup.

Storage Equipment

In most situations, your storage equipment will be a server-level computer that would have adequate storage capacity for your imaging project. You will need to determine whether you will be imaging your past files, all or partial. Also, you will need to know how many images you will scan per month. As a rule double the yearly estimates and plan enough capacity for the next three to five years. Server end-of-life durations are no more than five years. The processing power for this server does not need to be high because you are only storing and retrieving images. Bear in mind that many courts add this storage function to an existing server, and thus it would be prudent to utilize a robust server with greater processing power and internal memory. A single function server for imaging alone begins in the \$2,500 range with additional costs for hard drive storage. (2007 pricing).

Input Equipment

Scanners are available in a wide variety from single sheet feeders to flatbed scanners with Automatic Document Feeders (ADFs). An ADF usually can accommodate 20 to 30 pages and will save a great deal of time for the operator. At least one scanner should be a flatbed type. These scanners are needed for those tattered, torn, stapled or thin pages that come from places unknown. Your scanner should be capable of at least 300 dpi image quality and color imaging. Most scanners are supplied with serial and/or USB ports, but the cables are usually purchased separately for around \$12. Scanners that require a SCSI interface will require a SCSI cable and SCSI card for the PC. Both of these are expensive and although the throughput is greater the cost is not usually justifiable. A PC is required for each scanning device.

- Single sheet scanners begin about \$200. These are light duty – 10-20 pages per day.



- Flatbed scanners start about \$50, but choose a model with medium to high volume capability. Better quality machines, starting around \$300, would be considered “business quality”.



- Scanners with ADFs can be found with or without a flatbed. These are in the \$600 range without the flatbed and \$1200 with the flatbed. These are well suited for everyday processing.



- The PC required for each scanning station should have at least moderate processing power and memory. Budget \$800 to \$1,000 for each PC. This can be the same PC that the employee is already using for their other work.



- High-end scanning equipment is available to bulk load documents automatically to case management systems. These scanners can incorporate bar code technologies for case identification and routing. They will start in excess of \$5,000.
- Stay away from scanning pens and multi-function scanner/printer combination machines. The pens are difficult to use and very time consuming. The multi-function machines will be out-of-service if any one of the functions fails.



- If you need to purchase a printer, remember to include that cost in your budget.

Document Software and Setup

There are many software packages that will accomplish document scanning. The product should be capable of document scans from different types of scanners and saving these

images in a selected format (black and white or color), a selected quality (100 to 300 dpi) and to a specified file type (JPG, TIF, PDF, etc). Also, the software must be able to receive images from various entry points and store to your central storage device (server). Redaction functionality is a must and the ability to do bulk entry and direct transfers from word processing are features you may want to explore.

As of this writing, standards for file type and resolution are being developed by the Ohio Electronic Records Commission at the Ohio Historical Society, in conjunction with American National Standards Institute (ANSI). Check with the office of the State Archivist for updates on these standards.

Your case management vendor may have a relationship with one of the imaging vendors. Usually the software requires an Application Program Interface (API) to communicate with your case management database. API development can be expensive so try to avoid “reinventing the wheel”. For additional discussion of this, please see the section of this guidebook on integration.

The cost of the imaging software is dependant on the scope of your project. Software with an interface to case management and case management accessibility can start around \$10,000. This would be a one time Software License Agreement (SLA) with an annual support fee after the first year and should include installation, implementation, training and support. Conversion of existing images may be included but is usually an additional cost. The number of users may have an impact on the initial cost as some vendors will price their software by user licenses.

Your court can consult with the Technology Services section of the Supreme Court of Ohio or an outside consultant for further information and support.

Pricing Caveat

Prices referenced in this document are provided as an example, and are average costs as of 2007. If you are considering purchasing equipment and software, you should speak to your vendor for current costs, and not use the numbers in this document for final budgeting purposes.

Chapter Seven: Licensing

Definition: A software license is a type of proprietary or gratuitous license as well as a memorandum of contract between a producer and a user of computer software — sometimes called an End User License Agreement (EULA) — that specifies the perimeters of the permission granted by the owner to the user.

Software licenses are offered in a variety of ways. Single user, multi-user and unlimited users are the most common,

The simplest form of software license agreement would be the single user license which in effect is just what it appears to be – one copy of the software on one specific PC, to be used on that PC and only that PC.

Multi-user licenses can be sold by quantity. You would pay the same amount for each license and therefore be able to specify how many you wish to purchase. Some multi-user licenses are sold in groups such as 5, 10, 25, 50 and 100. There is often a price break as you require more licenses.

Unlimited licenses usually have a one-time or annual fee allowing you to copy the software as many times as needed. Vendors may offer separate licenses for viewing and image creation, with the view-only licenses at lower or no cost.

Most vendors will provide a “key”, “password” or an “authorization code” that will allow the software to function and often the software provider will keep track of the number of licenses purchased and installed.

Another aspect of licensing to be aware of is the difference between per seat, concurrent or site licenses. These are used in server based applications that distribute the software functionality to networked computers.

“Per Seat” refers to a software license based on the number of users who have access to the software. For example, a 100-user license means that up to 100 specifically named users have access to the program.

“Concurrent” or “Concurrent Use” software licenses are based on the number of simultaneous users accessing the program. For example, in a five-user concurrent use license, after five users are logged on to the program, the sixth user is prohibited. When any one of the first five logs off, the next person can log on.

“Site License” is similar to an unlimited license, with the exception that the software remains within the organization that purchased the software.

License agreements are ubiquitous and your project team should review and understand all of the details of the vendor’s licensing before you purchase. Legal counsel is strongly recommended.

Note: Licenses are permission to use the software tools. Images or data stored belong to the court. Under no circumstance should you ever surrender ownership of your images, or any other publicly controlled data.

Chapter Eight: Why is Integration Important When Considering an Imaging System?

When considering an imaging system, much thought must be given to integration of the system with your existing Case Management System, (CMS). The most obvious reason is the ease with which documents may be retrieved from the imaging database via the case management system, a known entity. The CMS will then serve as your master index into the imaging database

Filed documents are kept connected to their corresponding docket entries. If and when your court moves toward acceptance of e-filed documents, the documents can move directly to the imaging database and have corresponding docket entries created. Integrated imaging and CMS systems lend themselves toward a more cohesive and comprehensive approach to workflow

Many vendors (or vendor partnerships) offer the ability to convert from produced forms originating with the CMS system directly into the imaging system as images without first printing and rescanning. The CMS-imaging integration allows for implementation of quality assurance check programs to validate presence of documents for specific docket entries, thus identifying missing documents.

Signatures on electronic pads may enable case management paperwork reduction as well as saving to imaging system.

Further Integration Considerations

Migration – When / if your court migrates to another CMS or imaging system down the road, can the links be easily broken and, perhaps more importantly, easily recreated between the new systems?

Microfilm – when creating microfilm for archival storage, the natural source will be your imaged files. Some imaging systems will allow for simultaneous creation of microfilm at the time images are scanned, others may provide for this at a later time, and yet a third option is to take the image files and farm the task of creating microfilm out to a third party.

Public records – in anticipation of public records requests and the possibility of having to provide not only data fields, but possibly document images, it is advisable that you maintain two sets of images – an internal case management version that is complete and without alteration, and a second public records copy with key fields redacted. The CMS-imaging integration should support this dual filing method.

Access – The imaging system should allow some sort of access in the absence of the CMS. Although there are inherent dependencies when purchasing a product from a vendor, it is easier if you can avoid simultaneous dependencies on two vendors. In a worst-case (i.e., vendor bankruptcy) situation where the software may no longer

supported, dealing with multiple vendors will make the situation more complex. A contingency access method directly via the imaging system without the CMS or directly from the operating system's file structure would be a good safety net.

Chapter Nine: Outside Assistance

For those courts that do not have a computer or systems administrator it may seem impossible to gather all of the necessary information to undertake a project as comprehensive as imaging. This guidebook alone may not be enough. There are several avenues you may consider to assist in the acquisition of an imaging system. The Supreme Court of Ohio can provide a specialist to assist in the development of your project plan. This person can help with recommendations, vendor analysis, contracts and more. This service is provided free of charge and is available upon request.

Consulting services are often used on projects such as imaging. A project consultant can use his or her experience with other organizations to help guide you to an in depth project plan and ultimately a successful implementation. Your case management system provider may offer consultation on imaging. Many providers have a solution built in. Remember to review alternatives, you may find a better solution and save money.

And finally, do not forget the other courts in Ohio. There are many courts that have imaging systems; some old, some new, large and small. Get in contact with their administrators and users – their experience may save you time and money as well as show you the hows and how nots, thus leading you to a successful implementation

Chapter Ten: Standardization of Your Data Elements

The ultimate success of your scanning efforts will depend on effective pre-planning in the ways you identify and standardize your data. First steps should include contacting the Supreme Court to determine the “schema” used in tracking various types of court documents. This will always be a requirement for your scanning systems. Next you will want to look at secondary information that is unique to your court. You will want to create:

- a unique numbering/tracking system (and added bar coding)
- a data elements directory for all documents to be scanned.
- effective search and find categories for all types of data in your court (i.e. location, court name, judge name, ruling, type of case, etc.

Your success in scanning and indexing court documents is dependant on the accuracy of the operator/equipment during the scanning process. With a little thought, your scanning solution will offer you the integrity that your court demands and cost savings that your budget requires.

Chapter Eleven: Scanning and Indexing of Court Documents

Once you decide to accept the challenge of scanning documents, selected a start date, and chosen the type(s) of document to digitize, your next issue will be determining whether to set up an in-house scanning solution or contract with a third party scanning service. Although both solutions will meet your needs, your budget may help you determine which solution is best for you and your court.

Whether you choose to scan your documents in-house or hire a scanning service, you will have to rethink how your court creates, files and retrieves documents. There will be periods of time when your documents will not be available while they are scanned. A little thought will help to create an effective scanning solution for your court.

In-House Processing (Court/Clerk of Court)

There are many factors to consider when starting an in-house scanning service. Consider your caseload and all the sections that will need to access your scanned files. If you have a very active court and generate a lot of forms, you might want to have your own scanning equipment.

The initial cost of the equipment and software, maintenance, staffing, and training are also elements that need to be assessed in order to determine the benefit of the in-house service.

One added benefit of in-house scanning is that security is fully in your control.

The ongoing costs of maintaining an internal scanning section will continue to require resources in the years to come. If you are a large court, your costs may be offset by scanning on a 24-hour schedule.

Offsite Processing

Smaller courts and courts with lesser demands may want to consider contracting with a third party scanning service. This can prove to be a better use of limited in-house resources and still meet the daily demands of scanning.

Third party scanning services offer 99.9% scanning accuracy or higher. Touring the site of a potential scanning vendor will help you determine:

- their internal processes when scanning documents,
- how they approach security for your documents,
- what steps they take to verify and audit your scanned documents prior to returning them to you,
- their degree of accuracy.

Make sure that the ownership and use of all intellectual properties is defined clearly in the contract with legal counsel. For additional information, please see the section of this document on contracting and compliance.

Another option may be for you to “buy” the service from a large court near you. If you are near a larger court you may be able to hire them to scan your documents at a reasonable cost. Consider the impact of this service on your case management system.

Be aware of the difference between a vendor providing you with images and a vendor hosting your data. These hosted services will provide the program as well as remote image storage for a small setup fee and a monthly charge.

Chapter Twelve: Imaging and the Internet – A Match Made in Tartarus

If there were ever a combination that would seem to be fully invested in Murphy’s Law¹, it would be images in a court setting and the internet. In fact, a case might be made for O’Toole’s corollary to Murphy’s Law².

Eventually, an imaging project will end up being presented on the internet. Maybe not today; maybe not tomorrow, but someday, and unless you have built a few things into your project you will regret it for the rest of your life³. A bulletproof redaction process, foolproof quality control process and an absolute process for dealing with sealed/expunged cases are necessary if you want to present images in a public access setting on the web. While those processes are discussed in detail elsewhere, here are a few reasons why they are particularly applicable to displaying images on the web.

We live in an information society, and the internet is one of the primary avenues for the acquisition and transmission of information. Images associated with court documents are replete with information regarding the parties to the cases involved. While the information is “public information”, the current laws were written before the advent of information technology and the internet. A sensible, safe and legal policy towards redaction needs to be established before the first image is pixilated, and it needs to take into account that the identities of the persons involved in the various court cases could be seriously compromised if such a policy does not exist. As more and more government records become available online, the ability of persons of dubious intent to acquire personal information regarding individuals grows with each added file and image.

While primarily being concerned with the redaction of court records, ongoing discussions with the Supreme Court of Ohio and other local, county and state offices would be beneficial in that some of the things the court or the clerk’s office thinks to redact might

¹ If anything can go wrong, it will go wrong.

² Murphy was an optimist!

³ With apologies to Rick Blaine

not occur to the auditor or the BOE, and some of the things that they think of might not occur to the decision makers in the courthouse.

Quality control is a very complex subject but a few caveats here are in order. If you are destroying the originals, someone needs to compare every image to the original before it is destroyed. Someone needs to make certain that the documents just scanned are attached to the proper case and only that case.

Unless you want someone to spend countless hours on the phone talking to constituents and local practitioners with marginal monitor/graphics cards combinations and settings, the people checking the quality of the images need to be looking at them not only on the wiz bang monitor and settings they have at their workstation, but also with the older, less than optimal equipment you are going to find in less than cutting edge setups. The quality of the image needs to be good enough to compensate for the less than ideal settings that exist in real life.

Also, if any colors other than black and white are part of any document or image you are creating, some person with an interest in that image will have some degree of dyschromatopsia or color vision deficiency. Strictly speaking, this is a matter of accessibility, but the quality control process is a logical place to make certain it is addressed.

Finally, there should be an immediate and verifiable method of assuring that all matters that are sealed or expunged are removed from view on the web as soon as that condition comes into play. The person who seals or expunges the case, record or document should immediately verify that the item in question is not visible from the web on any official site. In the case of judicial personnel performing the operation, then the bailiff or clerk assigned to that courtroom or process should verify that the items have been removed from availability via the web.

With proper planning, and the careful implementation of safeguards, your experience with images on the web will be relatively trouble free (see Murphy's Law), but you need a process for dealing with mistakes when they happen. Not everyone in the courthouse needs to have the ability to fix these problems, but everyone must know what the process is and how to start the process when they become aware of a problem from an irate constituent or an overly amused journalist. The only employees who are exempt from this would be those that a) never answer a phone or email, b) never talk to anyone who is not a fellow employee, and c) are isolated on a deserted island in the South Pacific awaiting the return of the SS Minnow. Otherwise, they need to be aware of what needs to happen when someone says "I don't think that you guys really wanted this to be on your website." They might not be the person who fixes the problem, or even decides if it is a problem, but they should know what needs to be done to get the process rolling along.

Imaging and the internet need not be a serious or unfortunate events. Being aware of Murphy's Law will help to minimize the problems that you face and put in place processes to deal with the inevitable when something either goes wrong or is perceived to

have gone wrong. Once you have done everything you can do, relax, go to lunch, and remember Cole's Law⁴

Chapter Thirteen: What Documents Should a Court Capture?

This question can only be answered by each individual court, and the answer should consist of an analysis of several key factors. Staffing, volume, accessibility, budget and storage capacity are among the most important considerations. These factors will help determine "need". Courts processing a large number of cases with thick case files, stored in a remote facility, are more likely to benefit from an imaging system than a court that can maintain their few files in a convenient small area. Yet the small capacity court can realize similar benefits over time.

There is a wide range of items to capture with your imaging processes. Some courts only capture items that are deemed helpful to requestors of information. A journal entry or an order that the parties, attorneys and/or law enforcement agencies would be likely to request is an item that a court might want to have readily available for public access through a public access terminal at the court or via a court's website. These images would accommodate the requestors need for the court's ruling and alleviate the need for the clerk of court's personnel to retrieve the paper document and a copy it for the requestor. This type of imaging project would be considered small and manageable in scope with a minimal amount of equipment and storage capacity required.

Another tactic is to select certain case types to capture. Materials relating to those cases that are frequently recalled or reviewed such as domestic violence, DUIs or criminal misdemeanors may be imaged, while parking violations, or minor traffic violations may be deemed unnecessary to scan. Or a court may image by department. A civil small claims department might be a manageable start to an imaging project. This is an excellent means to ramp up your imaging project gradually. Creating a successful implementation in a controlled environment can help gain "buy-in" from other areas.

At the other end of the spectrum is the court that is contemplating imaging everything. For this type of project, you need to look into security levels so that some items can be restricted and others accessible. Although many items are deemed "public records" at the

⁴ 1 ½ lb green cabbage, quartered, cored and shredded

3 tablespoon cider or malt vinegar

2/3 cup mayonnaise

1 small onion grated (optional)

2 medium carrot grated

¼ teaspoon salt or to taste

In a large mixing bowl, toss the cabbage with the vinegar and salt. Grate the carrots and optional onion directly into the bowl. Add the mayonnaise and toss well.

close of a case, some items may be restricted from public access viewing in order to protect the parties from random information harvesting. Items that should be under consideration for restriction include: police reports, LEADS printouts, doctors' reports, and financial background reports, to name a few.

Color images may be required for clarity or readability. This may be necessary for mug shots, accident photos and other "poor quality originals."

The court should also analyze the number of pages scanned. A one page capture can take almost as much time as ten pages, depending on your case management software and the type of imaging interface. A scanner with an ADF can save a great deal of time and effort. An imaging solution with bar-coding integration will further reduce the time and effort involved to attach the images to a specific case. Some courts have employees that scan information full-time; other courts require that each employee scan case information along with their other duties. You may decide to scan at the close of a case or as you receive information. You may batch scan all available items when the case is created and subsequently scan when and if new items are presented. Many courts incorporate both batch and on-demand scanning processes.

Image file types vary, and likewise the size will vary. Software providers use differing solutions and may dictate the file type that is stored. An imaging vendor that can maintain all of the more popular image types allows your court versatility. JPG, BMP, TIFF and PDF are among the popular image formats. For example, a TIFF format scanned at 200dpi (dots per inch) will store at approximately 25-45 KB per page black-and-white. That is about 3-4 MBs per 100 pages or 35,000 pages per gigabyte of storage. Color images will be considerably larger. A color page may be as much as five times larger than a black and white image depending on the complexity of the color copy. A gigabyte of storage would hold around 2,000 to 2,500 pages.

Record retention is another key factor in your analysis of what to image. With the implementation of a complete imaging solution your image records can be retained indefinitely. Storage of paper files can be removed to a remote area or in some situations, eliminated all together.

Consideration: The sealing or expungement of a case will determine the availability of related images.

Project analysis is extremely important. Determine what you will be imaging then decide who and how to accomplish this goal. The case management vendors and the imaging solution vendors should be able to help to determine cost, equipment, capacity and labor required to begin a successful imaging project.

Scan-on-Pull

If a document conversion project is overwhelming from a resource perspective, courts can consider the “Scan-on-Pull” strategy. As older documents are retrieved (or “pulled”) for specific reasons, organizations can scan and index the documents prior to refileing or reboxing them. Associates who are searching for particular documents can first check the document management system/case management system to determine if the documents are available. This will eliminate the requirement and expense of pulling an older document if it has already been scanned and indexed. After a while, the requirement to pull older documents should be substantially reduced or eliminated all together.

Chapter Fourteen: Redaction

Redaction, in simple terms, is the practice of striking or otherwise taking out of a public record content that is sensitive, private, or confidential. The redaction is done in a way that does not distort the meaning of the record. The notion of “content security” is often used in the same manner - the original message or information is maintained without revealing sensitive content.

Redaction processes over the years have been done in many different ways. Blackening text with a magic marker, cutting out text with a knife, or placing tape over text before copying have all been manual forms of redacting sensitive information in the past. In the world of electronic word processing and record keeping, redaction takes on a very different profile. Text can be masked or overlaid with the “black box,” it can be “spaced-out” by replacing each letter with a blank space or the word “-redacted-,” in the area where there is redaction. And, of course, it can be treated with a combination of these methods. Which is right? The answer will undoubtedly vary with each circumstance.

The identification of “what” will help you to determine how you want to accomplish your redaction. In most cases, the primary item to redact is an individual’s social security number (SSN), which is often the main ingredient for identity theft and fraud. Other items to be considered include dates of birth, names of minor children, and financial numbers such as bank accounts, credit card numbers, etc. Also, names and addresses of witnesses, protected parties and relocation plans are of major concern to most courts. Familiarity with Ohio’s public access laws and rules of court will help you understand what is to be redacted.

Procedurally, you must develop a “content firewall” mentality. Knowledge of where these items are on specific forms is essential, but also a keen awareness for where these items might show up and what they look like is paramount.

Once you have determined what to redact, you will need to decide on the method you will use. Your imaging or case management system vendor should be able to provide several different approaches. The most prevalent is the masked original. This allows the court record to remain in its original form. All authorized individuals can read the original “unchanged” text. Those not authorized to view the sensitive information will see where the text is but it will be masked or covered with a black box. It is important to note that the document that is formatted to be read should have the underlying text removed where the black box is found. Usually the document is presented in a PDF or TIFF format which will make it a “picture” or “image” of the document. This will keep the reader from being able to manipulate the document in order to find the hidden data.

Avoid:

- Changing the font to white - mousing over can easily reveal the text
- Revision History - saves your final document without revision tracking
- Placing graphics over text - graphics can be removed
- Using dark highlighting - printed copies may not be obscured correctly

Releasing of printed material follows the same test as the “displaying” documents. Make sure the document is content secure and that all redactions have replaced the text and not covered over printed text. Some word processing will allow the original text to be printed and then the black box over printed. Thus the underlying word may be readable.

Best practices for releasing information:

- Release documents in a publishing-oriented format like PDF rather than native production formats such as Word Perfect, Word, Excel, etc.
- Establish a workflow for releasing information.
- Institute training so all staff members understand the importance of content security.
- Final check documents for complete and thorough redaction of sensitive content.

Remember, it is a potential crime and a liability mess if you fail to redact properly. Where it used to be that to redact a document you used a black marker or a piece of masking tape and, voila, you were safe, there is now a critical function of document management. The goal is not to hide information, but to assure safe disclosure of relevant content without compromising information.

Chapter Fifteen: Staffing

There are many different ways to approach staffing. It depends on the scope of your imaging project. For batch entry imaging may be as simple as an added function for the current staff. For limited or selected entries such as scanning only journal entries or other specific documents, the additional tasks are relatively insignificant. At the other end of the spectrum would be the complete imaging project where all documents are scanned. This may require additional part time or full time employees. An in-depth analysis that includes a comprehensive time study would be the best way to determine your manpower requirements ahead of time. Contact one of the many courts that are currently imaging

and ask to witness their process – and take a stopwatch along – you may be amazed at what can be done in 10 seconds!

Chapter Sixteen: Quality Control: Get it Right the First Time

You must constantly guard against the attitude of “there is never time to do it right, there is always time to do it over.” Perfection, in human endeavor, is a very elusive thing. A well-known soap billed itself as “99 and 44/100ths% pure”. 24 karat gold is only .999 percent pure. In the scope of an imaging project, perfection is something to be aspired to, but realistically everyone realizes that not everything will be perfect, every time. And yet, it should be. If we take the gold standard, one out of every 1,000 tickets scanned will be unreadable. If we go by the soap standard, 56 out of every 10,000 documents scanned will be attached to the wrong case. Quality control of electronic records cannot be isolated from quality control of all records.

All of this sounds very good, unless it is your ticket that’s missing, your pages that are attached to someone else’s case, someone else’s pages attached to yours, or your certificate of judgment that finds you “Not Guilty” that disappears into the great bit bucket. Suddenly, good enough might just not be.

This is why you need a well-defined quality control process to accompany an imaging project. Within imaging, quality control needs to look at three things.

- Did everything get imaged that needed to be imaged?
- Are the images usable? (readable, printable)
- Are the images findable in respect to the appropriate case?

Answering yes to these questions ensures a level of quality control.

Your quality control plan should encompass process, operator training, and document integrity. It is a good practice to set up quality audits with pre-defined standards to ensure an effective outcome. Securing quality audits will define your level of quality control. Audits may be internal or external, and are defined by a percentage of accuracy.

Successful quality control requires well-trained, qualified employees who feel invested in the imaging and quality control processes.

You should also be taking steps to make sure that you will be able to move your images to a new system if you upgrade – for additional discussion of this, see the section of this document on business continuity/disaster recovery. This discussion is in generic terms, and not tied to any specific technology or vendor. Specific processes should be discussed with your vendor or potential vendors to see how their process lends itself to a quality control process.

Some cases are very simple. A minor misdemeanor traffic case paid before its court date might consist of nothing more than a ticket/citation and a receipt. A bitterly contested

divorce might consist of thousands of pages of depositions, exhibits, cross filings and financial details. These and other types of cases all deserve the same level of consideration and attention to detail. Quality control practices need to determine that all of the appropriate documents have been imaged for each case.

A Picture is Worth a Thousand Words

Should someone review the quality / usability of every image created? The answer depends upon whether or not the original document is going to be available after the creation of the image.

There is no second chance to get it right if the original document is destroyed. If the scanned image is not readable/usable/admissible, the case record is irrevocably flawed and this might have an impact upon the viability or validity of the case. If the image is from an electronic document created in the process of filing the case with no hardcopy original being generated, then creation would be the only time to verify that the process worked properly. Any process that imports data from several sources into a form for processing is susceptible to malfunction or error, and the last thing you want to see six days or six weeks after a form was added to a case as an image that boldly proclaims “Error – data not found” on the header and nothing else instead of the sentencing data you are expecting to see. In either case, the only chance to decide whether or not the image is usable is at the time of creation.

There will never be a better time to check the usability of an image than now. If the original is going to exist for a period of time before it becomes unavailable, then review may be delayed. It is possible that there will be more time to check the quality of the images when the original documents are ready to be destroyed than there is now. But, of course, in the meantime you will have to deal with the piecemeal checking and reprocessing for the occasional problems that turn up.

The next question that needs to be answered within each office environment is who should be in charge of the quality of the images. The person checking the quality should be able to determine if the quality of the image is sufficient for use, which means they need to be familiar with how the images will be used.

A Place for Everything, and Everything in its Place

The final part of quality control is to assure that when all of the images are created and they are viewable/usable, they need to be findable – attached to the record of the appropriate case. It does little good to have everything properly scanned with good quality if you cannot access the image in a timely manner. As discussed in the first part of this section, having a unique identifier for each image that indicates what was imaged, when it was imaged, and to what case it belongs is invaluable. Also, it makes it much easier to track down the hopefully rare image that is not where you expect it to be. Your case management system usually provides this functionality.

The Bottom Line on Quality Control

Quality control is never cheap or easy. There is always something more pressing for people to do, something that needs to be done right now. But not paying attention to the quality of the process will be more costly in the long run. The image that is missing or misfiled rarely notifies you that “this is going to cause a problem” when you scan it. A case that is very simple right now can come under scrutiny later on when one of the parties of the case becomes notorious or famous. Official or press scrutiny on a case can come out of nowhere and having to explain why the official image of the original citation is unreadable or belonging to another case is very difficult to explain. Standing in front of the “On Your Side” camera is the wrong time and place to be thinking, “we should have checked that file”.

Chapter Seventeen: Business Continuity/Disaster Recovery

With any electronic media, especially computer based mass storage systems; it is paramount to maintain a complete, timely backup. Whether utilizing tape, hard disk, DVD or other forms of media storage, it is important to keep backup media both on-site and off-site in a safe environment. Some government agencies will negotiate reciprocal agreements where they will each store the other’s backup media. Other courts or agencies buy bank safety deposit boxes or other facilities that will store backup media in a protected environment. Backups stored in the computer center are at the same risk as the primary data source, so they should not be your only copy.

The data, in this case the images, is the important part of the backup. The software and firmware should be backed-up as well for ease of recovery. Keep your original software media (usually on CDs) with your data backups. Your vendor should be able to provide new software in most disaster incidents. It is a best practice to periodically test your backup. You can do this by selecting random files to recover. Copy, restore and review the restored item for accuracy and completeness.

Fire and flood damage are the most prevalent. Extreme heat from a nearby fire or overheated power supply can warp, melt or otherwise damage disk and tape media and/or their encasements. Water damage from a nearby fire, leaking plumbing or malfunctioning air conditioning unit can severely damage the media and/or the electronic components serving and driving the media. Malicious or benign destruction of data can include accidental or purposeful reformatting of drives or destruction of records. Electric spikes, brown-outs and rapid power interruptions can also severely damage your systems and data. Uninterruptible Power Supplies (UPS) can protect you from most power related incidents.

Your disaster recovery plan should include your insurance policies. They should have enough immediate provisions to purchase replacement equipment. This is an important part of disaster recovery. Within the plan should be an alternative site to bring up replacement equipment while the original site is being replaced or repaired. Servers,

networks and operating terminals can be online and functional within days of a disaster. Original site repairs and/or relocation can take months. It is a good idea to have a stepped policy. This would allow some operating expenses for the initial 30 days and additional funds to maintain operations for the next 90 days and so on. Your insurance provider should be familiar with this type of service.

Chapter Eighteen: Supporting the Process

The impact of each of our day to day actions in our court creates a decided impact on everyone else within our court. Why is this?

The evolution of our judicial process has defined how each person's role is a part of a larger system that guides us in our duties. This process envelops and effects all members of our court system. This unifying mantle defines how justice will be served and recorded. This is the driver of your digital imaging project.

A unified vision and action from the judges and clerks of court are essential to the success of your project. This approach of obtaining buy-in from the top will greatly enhance your project.

When introducing a new system such as document imaging, care should be taken to assess what effect and change this new process will have on all staff. Keep in mind that the roles and responsibilities of staff will in fact change – for the better.

One suggestion is to take an inventory of those roles and responsibilities and determine what new changes should be considered. Keep in mind that digital imaging will simplify old processes and create new ones that may involve new groups of people.

When implementing document imaging, it is important that:

- Your plans be clearly defined – complete with implementation phases,
- Anticipated time lines are presented,
- Key internal and external support staff are identified.

The anticipated outcomes may vary from your original plans. Keeping your staff a part of the process will add to the success of the project. Specifically, your staff needs to know:

- What are their roles and responsibilities in this project?
- How will their existing work be impacted?
- Will their existing work processes be challenged?
- When will this new system be implemented?
- What are the long term goals for our court?

Anticipating answers to these and other questions will show that some thought and consideration has been given to the day to day workings of your staff. Document imaging will affect how your court operates at all levels.

Everyone should be made to feel that they are an integral part of the new digital imaging system. Meetings, surveys and updates will help your staff utilize the new system. Support services should be clearly identified. And where appropriate, backups and/or “Plan B’s” should be shared within your court.

The more support your staff perceives is available, the more likely your digital imaging system will be successful. Your staff will feel a part of the new system and not as victims to it. Anticipate your staff’s need and keeping them active in the development process will be to your benefit. Your court and justice will continue to be served efficiently.