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Document Capture

White Paper

The many challenges of real world document capture.

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DRAFT

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The many challenges of Document Capture

Summary:

Users, vendors and service organizations have consistently underestimated the complexities, liabilities and challenges imposed by “real world” document capture. The recent turn of the century also marked a turn in Corporate America’s perception of efficient document filing, workflow, archival and retention methodologies. The current war on terror further increased concerns on security, integrity and confidentiality issues. Electronic filing provides a viable and cost-effective solution to these and other concerns. Mature and affordable document imaging products are now available to help manage a worldwide transition to electronic filing. Corporate America has more often than not fallen in the trap of oversimplifying the capture effort, and assumed that “we can do it ourselves”. Unfortunately, this has produced frustrating results and delayed the penetration of electronic filing as a viable solution to the paper nightmare. The amount of paper and microfilm to be digitized reached astronomical proportions, creating a durable and lucrative market for service organizations. Government, Healthcare, Financial, Industrial and Legal segments concentrate the vast majority of potential business opportunities.

The concept proposed in this document addresses some innovative methodologies designed to substitute the traditional service bureau approach, where source documents need to be physically transported to the service bureau plant. The methodologies were conceived to combine in-house capture at remote sites (client and/or satellite service branches) with completion of parts of the indexing, QC and publishing efforts at one or more local or remote consolidation sites. Source documents may be on paper, microfilm/fiche, computer reports, optical media or other media.

Marriage and running a business are also frequently underestimated, but unfortunately there is no divorce or bankruptcy for records management.

The traditional service bureau approach:

Backlog conversion clients traditionally outsource with service bureaus. A typical service bureau processes 15,000 to 100,000 (paper) pages a day. The capture process involves many steps, including:

. **Shipping and Receiving:** Fetching, boxing and labeling, logging, transportation.

- . **Document staging:** QC, storage, staging, logging.
- . **Barcode production:** Client database import, barcode separator leadsheets printing.
- . **Document preparation:** Screening, batching, numbering, unstapling, unfolding, logging, tracking and control, stamping, cut and paste, physical repairs, reordering, purge/select, QC, batch scheduling.
- . **Pre-Scan Indexing:** Optional data entry, bar code ensigns, separators prior to actual paper capture.
- . **Capture:** Scanning (color, black and white, undersize, oversize), density compensation, incoming data communications or fax, digital conversion, film conversion, Canofile conversion, Tape download(COLD), QC.
- . **Post processing:** Conversion, Indexing, Post-Scan Indexing, Data Entry, Abstracting, duplicates, Image Integration, filtering, image enhancement (deskewing, cropping, despeckling, line removal, etc.), Blank Page Detection, rotation, cropping, de speckling, OCR enhancement, zone extraction, form removal, forms processing, redacting, OCR (Optical Character Recognition), ICR (Intelligent Character Recognition for handwritten text and marks), QC.
- . **Quality Control:** Statistical, page by page, cross reference with data base, entry/verification, decompression test, image file size test, CD quality/integrity test, rescan, reindex.
- . **Publishing:** Database administration, update and publishing. CD-ROM labeling and publishing.
- . **Output and Archiving:** Staging, format conversion to 3d party formats, committal, mirroring, backup.
- . **Retrieval:** Indexed and full text search, analysis, display management, performance control management.
- . **Distribution:** Document tracking, Printing, fax, electronic mail, tracking and control, Correspondence, shipping, QC, document export.
- . **Disposition:** Destruction, return, storage.
- . **Logistics:** Transportation, storage, destruction, boxing, production reports, billing, storage administration.
- . **Production Control:** Administration, Management and other ancillary steps.

Until recently, the micrographics industry dominated this market. They successfully performed for decades using unsophisticated electromechanical optical equipment and large legions of workers. Today, however, to perform these operations competitively, safely and efficiently, a considerable investment is required in *higher tech* equipment, software, technology and know-how. To get all the pieces to work harmoniously and risk free, sophisticated technology in the hands of dedicated, experienced professionals is needed.

Until the mid 90's, scanning technology was available to only satisfy two extremes of the market needs:

Low end scanners only able to handle several hundreds of "ideal paper quality" single-sided paper documents a day, with severe restrictions on variable paper size, thickness, print

contrast and background colors.

Medium-to-high end scanners furnished with sophisticated feeding and image enhancement features, capable of capturing thousands of real-life single or dual sided paper documents a day.

Users frequently failed to implement a cost-effective solution to in-house capture of their backlog records, due to the high cost involved in high-speed, high quality conversion resources and expertise. Today, a wide range of hardware and software solutions is available. In-house capture has the following benefits:

Confidentiality, security and integrity of original documents. Shipping out originals to a service bureau, if not prohibited by regulations, frequently impacts the decision to outsource the conversion effort.

Document preparation and handling may be performed by staff members already familiar with the nature and specifics of the documents.

On-going capture after backlog conversion becomes a natural extension of the initial effort.

The negative aspects of in-house capture include:

High cost of hardware and software for good-quality capture, or inadequate results if low end resources are used.

Overconfigured resources left underutilized (high maintenance costs) at the end of the backlog conversion.

High labor costs, specifically in production control expertise and technical support.

Running an efficient production line is a whole new ball game, inconsistent with the users' core competency business skills.

If in-house costs were comparable to those of a service bureau, either the client or the service bureau may be in the wrong business.

Typical Challenges:

Switching jobs: Performing in a \$100,000 job is much easier than performing safely and profitably on a variety of small jobs. The setup effort, the customized patches, job priorities, etc make it extremely difficult to avoid errors and make money while constantly interrupting a production line to make room for others.

Quality Control: Insufficient or unsophisticated QC may and will create trouble that will be detected by the client, at the worst time, with serious consequences.

Industry literacy: Although document imaging has been around for a couple of decades, Corporate America and Academia have not quite yet produce stable curriculums in professional

development careers, so America's management is dealing with this industry on a weak foundation.

The temptation of overpricing: A sucker is born every day. If a vendor wants to victimize its clients, he may take advantage of industry literacy weaknesses and charge many times over the fair price. However, he better be prepared to face angry clients once they find out, because they will.

Technical complexities: Database operations, custom processes, corruptions, format conversions, etc

Backlog versus day-forward: Resources and methodologies for backfile conversion typically are quite different from those viable for day forward. Keeping both in synch is yet another challenge.

Complex logistics: Inventorying containers, shipping, receiving, status tracking, etc.

Records "pull": Records may be needed while in progress.

Obsolescence: of equipment, software, 3d party formats, etc.

"I.T. Literacy": The capture operation must understand, assimilate and interact with I.T. human and physical resources.

Problems are found when it's too late to fix them, i.e. double fed, mutilated or illegible pages found when originals were already disposed of, possibly shredded.

Missing, mutilated or illegible "Smoking gun" pages in litigation cases and "allergy reports" in medical records can be costly above and beyond just money.

Data from one project may be delivered to the wrong client.

A CD-ROM may be published with too little, too much, wrong data. Media may be defective, rendering its contents unreadable. A CD-ROM surface label may be printed on the wrong CD-ROM.

Indexing errors produce "electronic misfiles". Records may not be found where expected.

Murphy was an optimist.

The challenge of diversity. How professionals deal with it:

Business records reside in diverse formats. Most are letter and legal size paper, some are smaller coupons, receipts, tickets and checks. Some records are oversized drawings and blueprints. Most may be black and white with or without photographs, but you may also have colored documents, even solid 3D objects like fabric samples. Still other valuable documents are on microfilm rolls, fiche or aperture cards. You may perhaps even have medical or stress of material X-Rays. You could not easily cost-justify the \$300,000+ needed to capture such a diversity of formats with high quality and integrity. Most imaging service bureaus out there would probably **not** have **all** of the adequate resources either. Even if they do, they may not have the ability to dynamically and efficiently mix them to serve you well and economically.

We at I.S.A., process **batches** of documents consisting of containers in the form of banker boxes, microfilm roll boxes, envelopes with microfiche, X-Rays, etc. Before scanning, and in

order to minimize scanning or feeding trouble, we **prep** each batch by removing staples, unfolding sheets, insert target sheets, etc. While we **prep** the contents of a container, we often run into segments of documents with diverse formats such as oversized, color, etc. In these cases we utilize pre-printed **twin barcode** sheets, placing one of the identical twins in the location within the container where the segment was found. The other matching twin barcode sheet is clipped to the segment, which is removed and set aside. We allocate one **set-aside area** for each type of production line to be used, i.e. color scanner, wide format scanner, check scanner, grayscale scanner, etc. The batch is therefore split into as many set-aside segments as different formats were found. Each segment is then processed by the optimal scanner device and capture system for its type. All barcodes within the segment are scanned along with the rest of the segment.

Our production software recognizes all barcodes and electronically merges and shuffles things back where they belong. Recognition problems and operator mishandling are controlled by making each and every barcode accountable. No barcode sheet should remain widow or orphan without a viable explanation. A number of thorough quality control reports and cross-references provide further assurances that the electronic reconstruction of the originals is perfect.

When it is time to de-prep (i.e. to physically reconstruct the original batch), the twin sheet that has been left in the container acts as a placeholder to remind us where each segment belongs. Both matching twins are left in the container as evidence that the whole circle was traced perfectly.

By following this methodology, we also have the opportunity to face equipment downtime, peak periods and other nuisances. All we need to do is to create a segment with the twin barcode system and farm it out to one of our outsource partners. All of this translates into economy, quality and integrity in the results delivered to our clients. Now you know why there is no reason why you should compromise your job and your organization's image by settling for less. Quite possibly, sooner or later you will be asked to publish some records on the Inter/Intra net. Neither your auditors nor the party litigating your company will have any reason to accept fuzzy or distorted representation of your originals. Your users will be more enticed to work with you rather than resist your electronic records management system, and you will help your organization keep a competitive edge.

The methodology discussed here is an adaptation of I.S.A.'s production line to an environment where the client and/or a satellite branch performs basic capture, while the service bureau undertakes all remaining tasks at their plant. As a comprehensive service offering to its clients, the satellite branches may include in their cost per page the leasing of all necessary hardware and software at their client site, as well as training, management, supervision and support.

Equipment used at the client site during backlog capture is returned back at final acceptance. A downscaled configuration may be then installed at the client site to support ongoing capture needs.

Size matters.

Smart indexing:

Brute force indexing should be the very last resort. It is expensive, time consuming, labor intensive and its accuracy depends on legibility, consistency and predictability of source documents. It is shocking how many projects failed to creatively look for better options. Typical (better) options include:

Table lookups.

Optical and barcode recognition.

Forms processing.

Word wheels, partial fill.

CAR (Computer Assisted Retrieval) files for microfilm.

Other data entry and database techniques.

One frequently ignored fact is that most businesses already have somewhere computer records containing indexes pertaining to paper records. It could be billing, accounting or auditing files, management reports, statements, tax files, etc. Surprisingly enough, many clients don't dig deep enough to locate this data, when negotiating a backfile scanning project. With the assistance (and insistence) of a professional service bureau vendor, these records should be used to print barcoded target sheets. These sheets, printed in the same (approximate) order as paper files are filed, contain a unique barcoded number, along with a few lines of text with clear information used in matching them with the physical folders. All is needed now is to drop these sheets in the matching document before scanning. Computers will automatically populate the indexing database using the data supplied by the client. This is inexpensive, accurate and efficient. It also produces two valuable by-products: widows and orphans, i.e. barcoded sheets without matching folders and folders without matching barcodes. The former indicates that these records are in someone's briefcase, car trunk, or simply lost. The latter represents real documents the computer never knew about, possibly exposing liabilities, collection deficiencies, tax issues, etc.

Making every barcode accountable is essential to keep the integrity of this process, and facilitates comprehensive reporting and exception handling.

This kind of process is only one of many other efficiency factors and specific technologies, mostly available to those in the business of capturing and publishing records, who also possess a vast arsenal of other tools, technology, know how and "secret tricks".

The more you use, the less you lose.

Do's and don'ts:

Don't store images or data using paths or file names containing index data. Use arbitrary or consecutive numbers in folders and file names and make sure you do not store more than a couple of hundred images per folder. A cross-reference file will match indexes to paths and file names.

Do make a special effort to locate somewhere in your organization computer records containing some or all the fields you expect your imaging service vendor to use as indexes. This can prove invaluable for QC purposes and may save you a fortune in indexing costs.

A common mistake: single source vendor for technology and service:

The success of American democracy hinges on a two party system, with a robust system of checks and balances. This concept carries a strong message applicable to politics, war, family, sex, love and business. In our industry, however, many prospective and current document imaging users have made and continue to make the terrible mistake of asking for a single source vendor for both technology and service. In particular, for the acquisition, installation and deployment of an imaging system (technology), combined with a backfile conversion (service). The main reason why such combination is a bad decision is that the motivations driving a technology vendor are conflictive with those of a service vendor. No matter how close the vendors work (or claim to work) together, we strongly recommend clients to maintain a dual structuring of the relationship. This is definitely in their best interest.

A partial list of additional issues substantiating our recommendation follows:

A technology vendor is motivated to sell more hardware and software, while a service vendor benefits from outsourcing a service. It may be unlikely to get unbiased advice from either one.

A technology vendor will probably talk the client into installing and training first, then convert and import data and images, in an effort to secure and expedite his payments. A service vendor will consider this wrong because as soon as the system comes up to life, the client needs satisfaction and support from its users, so if no critical mass of data is there to find what they need, it will create disappointment, frustration and resistance to change.

Configurations should adapt to future upgrade requirements, but the capital spending in growth could be and should be balanced with the outsourcing of peak and transient requirements. A technology vendor will favor whatever maximizes and expedites its sales.

Ownership of the client's account by both vendors may create frictions. Both vendors should feel entitled to pursue further business with that client. However, the prime vendor is likely to make it difficult for the secondary vendor, regardless of the client's true needs.

The prime vendor will probably tweak the proposal to favor the bid award to its side of the equation, to the detriment of the other side, regardless of the client's best interest.

There is a natural rapport between technology vendors and MIS staff, while a questionable one exists between service vendors and department managers. I.T. managers seldom welcome imaging clusters within their organization. They have too much to lose, especially control. Expeditious, energetic department managers typically "champion" the benefits of a small to medium size imaging system for its users, probably running against MIS' 5 year strategic budgeting, likely without using much of the mainframe computer resources, and flooding them with support and traffic jam calls. Some intrigue, second agendas and secret pacts may be going on back stage between the two vendors if they are forced to operate under a single umbrella, no matter what's best to the client. By doing this, the client just precluded itself from the benefits of a checks and balances method.

Technology vendors tend to be more technically savvy than service vendors. They are structured to persuade the market that they do now about the technology they sell, i.e. they *radiate* their knowledge. Service vendors concentrate their talents *internally*, within their own production facilities. Clients sense this and tend to believe the so perceived *expert* over what the other side has to say, regardless of where practical reality is. Some former microfilm entrepreneurs, some technology experts, and some incipient service bureaus and “*I-can-do-it-myself*” clients, are inaccurately and unfairly oversimplifying service matters. (...“what’s the big deal?... anyone with a scanner and a CD writer can do backfile conversion”...). In reality, professional level imaging service work is **highly** complex and requires a great deal of technical sophistication. Moreover, the cost of mistakes in this area can be disastrous while in the surface things seem to be innocently fine (see “horror stories” above). When the time comes to detect such errors, it may be too late to fix them.

It is unreasonable to expect optimal level of understanding, knowledge and capabilities on either vendor, in regards to issues of the other side. However, their businesses are similar enough to dangerously send mixed signals about how to approach such issues.

Although the road to hell is paved with good intentions, nobody likes the thought of having their name in the “adopted by” road signs.

How clients should qualify a vendor:

The information in this section may prove beneficial to users as well as to vendors. It consists of a simplified list of tips used to pre and post qualify a service vendor. Although the tips are geared towards users, vendors should nevertheless find it informative.

See Appendix “A”, Questionnaires. If the vendor is not asking these sort of questions, be suspicious.

Ask for processes and procedures. The vendor may be reluctant to share all internal procedures, but at least they should respond to you with summary descriptions on how they manage the logistics of inventorying boxes and containers, QC steps, exception and progress reporting, acceptance criteria, etc. Ask for the vendor’s handling of control totals. Be suspicious of a vendor that does not have such procedures in place.

Support: Inquiry about how the vendor handles problem reports and remedial actions.

Job and contract administration. Is the vendor’s sales and service agreement just boiler-plate, or does it address true service issues pertinent to the job?. Are late deliveries, quality and remediation issues spelled out?. Does the agreement include specs and assumptions, or should you play it by ear?...

QC tips: Both users and vendors should implement QC procedures. A user should include inventories by box, request the box number to be used in the indexing (this will also prove useful later on, when you are ready to shred or store the boxes) and check the electronic images against random visual checking of tabs and physical pages. Make sure the first and last of every box are always checked. Pick a thick folder and a thin folder, and see if the electronic page count matches. Look for pages with challenging sizes and thickness and check how they were

captured. Look for staples and sticky notes. Make sure they were handled properly. Request to see QC and exception reports from the vendor. If necessary, use “booby traps”, i.e. include one or more “secretly marked” documents per box and make sure they always come back with the right page count and indexing. Make a mistake to simulate a mistake of the type you expect the vendor to catch. See if it does, but don’t do it too often, once or twice in the whole project should be enough. If critical enough, use an independent source to assure quality and catch deficiencies. **Dignified brokers:** Only a very small fraction of all service bureaus actually have their own resources to perform certain tasks like microfilm/fiche conversion, wide scanning, color scanning, etc. Unfortunately, virtually all of them will make you think they do. There is nothing wrong with subcontracting, for as long as it is being done honestly and professionally, i.e. a bit more than cashing in on markups and blaming others for whatever did not go as expected. Make sure your prospective vendor *clearly* declares what portions will be directly handled by them, and what tasks will be subcontracted out and to whom.

Sales tips:

Following is a very short list of pointers and tips designed to help make a sales call for document imaging services successful. It is listed in no specific order of importance, and is completely unstructured.

The call may be about selling service, technology (hardware, software), or both. Make sure it that is clear in your mind and in the underlying message to the client. Strategies for each of the three routes are quite different.

Keep the I.T. person out of the sales cycle for as long as possible. Most of the times, this person will shoot you down for good and bad reasons. Every now and then, they are your best (or only) ally, but this is infrequent.

Avoid the “paperless office” concept. It is stereotypical and intimidating. I coined the replacement expression “filed paper-less” office, which pitches the concept of “*use all the paper you want, but never, ever file it*”.

Do not condescend with older, less efficient technologies like microfilm or manual filing. Make them part of your transition planning.

Be prepared to resistance to change. People fear changes and your new solution challenges their job security. This happens at all levels, from clerical to management.

Highlight your strengths versus what the average competitor may offer, but insist on QC. Talk about inventorying the client material and your QC and logistical reports and processes.

Issues you want to learn during your preliminary sales call (see questionnaire appendixes):

How does the manual filing system work.

How frequently files are checked in and out.

How many people and from which locations use the documents.

Analyze the dynamics of “day forward” filing, i.e. new documents.

Estimate total size of the backlog.

Estimate “day-forward” volumes.

Estimate average pages per document.

Assess the challenges of the paper, i.e. odd sizes, color or photo (ask if OK to scan in black and white or not).

Determine if a third party imaging system will be the target of your work, or if you can provide either an interim or durable technology solution.

Cost ranges:

With very few exceptions, pricing should only be disclosed after a questionnaire has been filled in and samples sent and benchmarked. (See questionnaires at end of this document). Pricing will depend on issues like:

- . Volumes.
- . Consistency.
- . Predictability.
- . Attended/unattended capture.
- . Negotiated levels of accuracy, cosmetics and QC.

The following figures are an attempt to illustrate the type of retail price ranges found in the industry. ISA will quote our client discounted wholesale prices instead. **PLEASE DO NOT USE THESE FIGURES TO QUOTE ON A JOB.** There are no shortcuts here, anybody serious about pricing needs prior training and also needs to perform a preliminary study and perhaps a benchmark prior to establishing a price.

Typical price ranges follow:

RANGE

Typical Avg

Paper scanning:

Check scanning:

Engineering drawing scanning

16mm roll film:

35 mm roll film:

COM Fiche:

Step & Repeat Fiche:

Jacketed Fiche:

Aperture Cards:

Canofile conversion:

Special conversion:

There is a good reason why hospitals do not display a price list for surgery and organ transplants.

CRM system – centralized assistance:

Given the complex structure of functions and accountabilities proposed, we strongly suggest the adoption of a centralized Customer Relations Management (CRM) system. Deviating from the traditional use of such system, the intent here is to allow experts coordinate the following field functions:

Job qualification.

Job referral.

Job partitioning.

Partitioned job consolidation.

Out of scope project segment management.

Useful Links:

<http://www.imageprocessingtools.com/links.html>

<http://www.imagepub.net/ipbookmarks.html>

<http://fiat.gslis.utexas.edu/~scisco/inel.html>

The author:

A document imaging pioneer, Manuel produced innovative products and strategies in the computer industry for over 35 years. He created imaging products used by clients domestically and internationally in various industries, including Government, Financial, Nuclear and Healthcare. He also spearheaded imaging technology in international markets, training resellers in six countries, dictated conferences and promoted distribution efforts. His activities were published in several trade magazine articles. Since 1992, he focused on the development of technology and strategies for the document imaging service bureau industry.

Starting with a degree in Telecommunications, Manuel has devoted intense years to University teaching, software development and support, installation management, sales and corporate management. A naturalized US citizen, Manuel moved to California in 1979.

APPENDIX "A"

QUESTIONNAIRES

INTEGRATED SCANNING OF AMERICA, Inc.
Document Image Products and Services

Paper capture assessment questionnaire

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Your answers to the following questions will allow us to estimate the cost of converting your documents. Please fill out this form in its entirety.

Your name: _____

Phone: _____

Title: _____ Fax: _____

Company: _____

Date: _____

Address: _____

CURRENT FILING:

The documents you desire to capture are currently referred to within your organization as (i.e. "Signature files", "Contracts", "Personnel Records", etc.):

2) The documents are the responsibility of the _____ department. For questions, we should contact Mr./Mrs. _____ title: _____.

3) What is the typical size of the pages to be captured (scanned)?

8 1/2" x 11" : _____% Other large docs (i.e. engineering documents, etc.) : _____%
8 1/2" x 14" : _____% Other small docs (i.e. checks, stubs, etc.) : _____%
14" x 17" : _____%

4) What is the approximate percentage of duplex (print on both sides) pages?: _____%

5) Please describe in your own words how the documents are currently structured. For example: "multipage folder containing.....in.....order....indexed by...", etc.

6) The documents are currently stored as follows (if necessary, measure it in terms of linear feet, storage boxes, drawers or filing cabinets):

Paper _____ pages
microfilm _____ pages
other _____ pages

7) The estimated average number of pages per folder (document) is: _____ pages.

8) If color images are required in color, please enter estimated percentage of total: _____%

9) If photographs are required in grayscale (photo mode, fair quality) , please enter estimated percentage of total: _____%

10) Special handling:

Documents need to be restapled: Yes No.

Restore exact original stapling device (staple, clip, rubber band, etc): Yes No.

Some documents will be marked "not to be scanned" but require restoration in original sequence: Yes No.

Some pages will be marked "not to be scanned" but require restoration in original sequence: Yes No.

INDEXING:

An "index field" is any data related to a document, that might be possibly used in the future to help retrieve that document. Please indicate which fields you would like to use for this purpose:

Approximate lengths (in characters/digits) of main index fields:

Index Name: _____ Length: _____ characters/digits

Index Name: _____ Length: _____ characters/digits

Index Name: _____ Length: _____ characters/digits

Index Name: _____ Length: _____ characters/digits

Index Name: _____ Length: _____ characters/digits

Index Name: _____ Length: _____ characters/digits

4) Please qualify the degree of difficulty in locating the above indexes off your documents, i.e. "easy, always on first page", "easy, on folder's label", "tricky, it may be anywhere in the document", etc.: _____

5) Is there a computer file available anywhere in your organization that may contain some or all the indexes to be used for these documents?: Yes, No.

6) The budget for the project has (has not) been approved.

7) You expect to start the project in about _____ months.

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Film/Fiche Conversion
Questionnaire

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1. Capture: Performed Using
 - a) Rotary Camera
 - b) Planetary Camera
2. Backdrop/drum color used during filming:
 - a) White
 - b) Black
3. Media:
 - a) Roll
 - b) Fiche:
COM
Step-Repeat
Jacket
 - c) Aperture Card
4. Reduction Ratio(s) _____
5. Type:
 - a) 16 mm
 - b) 35 mm
 - c) Other/don't know
6. Borders, SEPARATION BETWEEN FRAMES(**IMPORTANT**):
Narrow
Normal
 - c) Wide
7. Blip
 - a) Multi-Level
 - b) No Blip
8. Polarity
 - a) Positive
 - b) Negative
9. Orientation:
 - a) PortraitLandscape
Mixed. _____ % Needs Rotation
10. Approximate number of Frames per fiche/roll: _____
11. Overall Filming Quality(**IMPORTANT**):
 - a) Very Good
 - b) Acceptable
 - c) PoorOther

12. Volumes:

_____ frames

_____ rolls

_____ fiche

_____ Aperture Cards

Turnaround required: _____

Indexing required: _____

Enhancements required: please indicate if images require rotation, cropping, bates stamping, deskewing or other:

Resolution:

200 dpi

300 dpi

Other:

Notes, observations:

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INTEGRATED SCANNING OF AMERICA, Inc.
Document Image Products and Services

On Line Hosting Assessment Questionnaire

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Your answers to the following questions will allow us to estimate the cost of hosting and administering your documents.

Your name: _____

Phone: _____

Title: _____ Fax: _____

Company: _____

Date: _____

Address: _____

The documents you desire to capture are currently referred to within your organization as (i.e. "Signature files", "Contracts", "Personnel Records", etc.):

2) The documents are the responsibility of the _____ department. For questions, we should contact Mr./Mrs. _____ title:

3) Types of the pages to be hosted:

Letter/Legal: _____%

Large docs (i.e. engineering documents, etc.) : _____%

Small docs (i.e. checks, stubs, etc.) : _____%

Color: _____%

Photographic quality: _____%

Documents will be captured by: ISA _____, Other: _____

Documents will be indexed by: ISA _____, Other: _____

4) Estimated number of pages to be hosted at once (backlog): _____.

5) Please describe in your own words how the documents were manually filed. For example: "hanging folders containing invoices in invoice number order"... etc.

6) Is the current ISA web interface satisfactory to your needs, or would you require a custom interface? _____

7) The estimated average number of pages per folder (document) is: _____ pages.

8) Do you need to setup credit card access for your users: _____

9) Are blowbacks (batch printing) required: On-Line (remote user prints) _____, Off-Line (ISA prints): _____.

10) Please estimate frequency and volumes of initial and new additions to the hosted data and image bases:

Backlog: _____ docs, _____ pages

Weekly: _____ docs, _____ pages

Monthly: _____ docs, _____ pages

Yearly: _____ docs, _____ pages

Other: _____ docs, _____ pages

11) Do you need us to provide you with backups in the form of : CD-ROM _____, DVD _____, or DLT: _____, NONE: _____.

12) Would you require to add or change database records: On-line: Y / N, Off-line: Y / N, None of the Above: _____.

13) The budget for the project has (has not) been approved.

14) You expect to start the project in about _____ months.

(footnote continued)

PAGE 6

PAGE 7

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