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AZERBAIJAN LEGAL DATABASE (ALPI) PROJECT

FIRST QUARTERLY REPORT JULY - SEPTEMBER 2004

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by

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Introduction

The United States Agency for International Development (USAID), in the summer of 2003, funded a study to assess the feasibility of having the Government of Azerbaijan (GoAZ) implement and sustain a database containing the country's framework legal documents. The term "framework legal documents", for all practical purposes, means the country's normative acts. Based on the favorable findings in the 2003 assessment, USAID funded the Azerbaijan Legal Database (ALPI) Project, with the National Center for State Courts (NCSC) as the contractor. The designated GoAZ counterpart agencies are the Ministry of Justice (MoJ), the country's official repository of its normative acts, and to a lesser degree, the Office of the President.

Upon receiving the award for the ALPI Project in mid-June 2004, NCSC deployed an advance team to Baku to handle numerous administrative and start-up activities. The Chief of Party arrived in Baku on 24 June 2004.

This is the first quarterly report for the ALPI Project, covering the period from mid-June 2004 to 30 September 2004. It contains the following four sections: Background; Overview of Major Activities; Principal Substantive Activities; and Obstacles.

Background

The long-term objective of the ALPI Project is to develop within the GoAZ the institutional capacity to make the country's framework legal documents readily available and easily accessible over the Internet and on CD-ROMs. Having an "official" database that contains a complete, accurate and timely collection of Azerbaijan's framework legal documents is critical to achieving transparency, one of the key benchmarks for a country operating under the Rule of Law.

The Azerbaijan framework legal documents are initially published in a newspaper, usually within a day or two after they have been issued. The date of publication of a framework legal document in the newspaper is that document's effective date, unless the document expressly designates an effective date. Months after publication in the newspaper, the framework legal documents are published in one of two official GoAZ monthly digests, *Toplusu* and the *Bullitini*. *Toplusu*, published by the Office of the President, contains the higher level framework documents (i.e., the Constitution, Laws, Presidential Decrees and Orders, and Cabinet of Ministers Resolutions and Orders); and the *Bullitini*, published by the MoJ, contains those Ministerial Regulations that have been registered with the MoJ. Publication of *Toplusu* and the *Bullitini* began in July 1997.

The most important framework legal documents in terms of the governing law of Azerbaijan are the “Codes” (e.g., the Civil Code, the Criminal Code, etc.). There are currently 17 effective Codes in Azerbaijan. These Codes are initially enacted by a law approved by the President, and from time to time are amended by laws approved by the President. Integration of the amendments into a Code is critical to having a functioning legal system. Although the initial enactment and each amendment to a Code is a separate framework document, the integrated or updated Code (containing the additions, deletions and changes set forth in the amending laws) is not a framework document. Nevertheless, the ALPI Project database needs to contain the current, complete version of each of these 17 Codes. The process of integrating amendments into a Code is referred to as “codifying”, with the result being referred as a “codified Code” or an “updated Code”. For the purposes of the ALPI Project database, the framework legal documents are referred to sometimes as “standalone documents” to distinguish them from the 17 codified Codes.

Overview of Major Activities

The creation, maintenance and distribution of a database containing an official compilation of the ALPI Project’s framework legal documents involve numerous interrelated activities. The most critical of these activities are:

- defining the contents of the database;
- assessing the existing institutional capacity of the GoAZ, to include both its human and technical resources, to create, maintain, update and distribute the database;
- collecting and compiling the retrospective documents that will comprise the database;
- creating an initial database containing these retrospective documents;
- developing a plan for collecting, compiling and adding prospective framework legal documents to the database;
- developing the specifications required to maintain and update the database;
- developing the specifications required for distributing the database;
- procuring and installing the information and communications technology (ICT) required to maintain and update the database, and to distribute the database over the Internet and on CD-ROMs; and
- developing a plan for making government officials and the public at large aware of the benefits of having access to the database.

The focus of NCSC program during the period covered by this first quarterly report has been to address each of the above substantive activities in an integrated manner, with the one exception of the last one, the development of the awareness program. An awareness program cannot be undertaken until the database is ready for release.

In addition to these substantive activities, which are discussed in more detail below, NCSC, during the period covered by this first quarterly report, established an office in Baku, procured and installed required hardware and software for the office, prepared documentation to obtain registration, and hired four full-time local independent contractors (an Office Manager/Administrative Assistant, a Legal Editor/Translator, an Information Technology Advisor, and a Driver).

Principal Substantive Activities

During this quarter, NCSC generated a number of documents that discuss the major issues and plans for implementing the ALPI Project. The six most critical documents for the purpose of this report are: two technology assessment reports (Attachments I and II); NCSC's approved Workplan (Attachment III); a draft of the proposed ALPI Project database functionality requirements (Attachment IV); the proposed order for codifying the existing 17 Codes (Attachment V); and a draft of required workflow activities (Attachment VI). We summarize here the essentials of these six documents.

The first order of substantive business was to complete by the end of July 2004 an assessment of the current situation with respect to all technical requirements necessary to achieve the ALPI Project's long-term objective. This assessment activity resulted in two reports being generated by NCSC short-term consultants John Sherman and Kazimierz Lobaza. Mr. Sherman's report focused on the broader strategic issues.¹ Mr. Lobaza's report dealt primarily with software and hardware specifications.²

These two reports formed the basis for NCSC's Workplan, which was submitted on 15 August 2004, and approved shortly thereafter by USAID.³ In considering the requirements for achieving long-term sustainability, the Workplan recognized the need to hold to a minimum any reengineering of workflows and the need for a production environment that is within the projected operational capability of the GoAZ, both from a human resource standpoint and from a technology standpoint.

The Workplan set forth three basic stages: first, develop and test a prototype (approximately mid-June 2004 to mid-December 2004); second, based on the prototype, design and develop the production system (approximately mid-December 2004 to the end of February 2005); and third, implement the production system at the MoJ and the Office of the President (approximately March 2005 to September 2005). The initial database is currently scheduled for release in June 2005. Activities that will occur from the initial database release date until the end of the ALPI Project include the public awareness program, the ongoing maintenance and updating of the database, and the completion of all codified Codes.

The first stage, the development and testing of a prototype, is currently in progress. All work during this stage is being conducted within the NCSC/Baku office. The following is a list of principal activities completed and those that are in progress:

- established detailed standards for each critical element that is required to have accurate and complete framework legal documents in the database, in both text format and image format;
- identified all, and collected most of the principal retrospective documents -- i.e., the approximately 5,000 documents published to date in *Toplusu* -- that will comprise the initial database (with the exception of the National Library, there does not appear to be anywhere within the country one source, including the Office of the President, that has a complete collection of the now close to 90 published *Toplusu* volumes);⁴
- commenced the conversion of these framework documents to both text format and image format within the established standards (nearly 800 documents converted to date, with an estimated completion date for all 5,000 now being mid-November 2004);

¹ See Attachment I for details

² See Attachment II for details

³ See Attachment III for details

⁴ The set of *Toplusu* provided to NCSC by the Office of the President had 30 missing volumes; to date, we have obtained 25 of the missing volumes from various sources and are pursuing additional sources for the remaining 5

- determined the metadata (that is, data about each framework document) that needs to be captured and used to search for and retrieve documents in the database;⁵
- designed and implemented a prototype metadata data entry screen (completed to date nearly 800 metadata records);
- developed a methodology for verifying the accuracy of the data entered into each metadata record (verified to date the data in approximately half of the existing metadata records);
- developed a methodology for collecting date of publication data for each framework document published initially in the newspaper (starting on 1 August 2004);⁶
- developed a model codified Code using the Land Code -- this Code contains 113 Articles, of which 28 have been amended in 8 different amending laws (personnel from both the MoJ and the Office of the President reviewed the model Land Code and with minor recommendations, which we implemented, approved the work product);
- based on the model Land Code, completed the codification process required to have a complete current version of two additional Codes, the Code of Civil Procedure and the Family Code, and are in the process of completing the next two Codes, the Civil Code and the Timber Code (projected completion date for these next two Codes is the end of October 2004);⁷
- developed in draft form a schematic to show the principal functionality required to search for and retrieve documents in the database, to include both the individual framework (or standalone) documents and the codified Codes;⁸
- based on the schematic for searching and retrieving documents, developed prototype end user display screens;
- based on the experience to date and knowledge of various processes for converting documents to text and image format, in creating and managing metadata records, in updating and maintaining a legal information database and in distributing such a database over the Internet and on CD-ROM, developed in draft form the functional technical requirements that will need to be implemented in a production environment;⁹ and
- based on the experience to date and knowledge of workflow activities required to maintain and update a legal information database and to distribute such a database over the Internet and on CD-ROM, developed in draft form the workflow activities that will need to be implemented in a production environment.¹⁰

All documents dealing with proposed system functionality and workflow activities are currently being reviewed and analyzed by ITC experts. The results of this effort will be a report that will enable NCSC to have the required production system software developed and implemented.

Obstacles

At the time the ALPI Project commenced, a Memorandum of Understanding (MOU) between USAID and the MoJ had not been executed. One of the first orders of business for NCSC was to assist USAID in the development of a draft MOU, in both English and Azeri. By mid-August, a proposed draft MOU, in both languages, was submitted by USAID to MoJ. The Workplan milestone date for the execution of the MOU was 31 August 2004. Despite continuing efforts by

⁵ See Attachment IV, Appendix B, for details

⁶ From 1 August through 30 September 2004, 88 framework documents have been published -- 30 in August, and 58 in September

⁷ See Attachment V for the priority for codifying the remaining 12 Codes

⁸ See Attachment IV, Appendix A, for details

⁹ See Attachment IV for details

¹⁰ See Attachment VI for details

USAID, the required MOU is still not executed. Although NCSC has had numerous meetings with MoJ officials regarding the ALPI Project, MoJ has not permitted NCSC to have access to its processes and staff without having a signed MOU.

The need to have an executed MOU was an agenda item on the October 2005 Task Force meeting in Washington, DC. In submitting the proposed agenda item, NCSC suggested a deadline date of 15 October 2004, for an executed MOU between USAID and MoJ; and further, that if MoJ were unable or unwilling to meet this deadline, then an alternative principal counterpart agency be substituted, with the recommendation being the Office of the President as the principal counterpart agency.

In this regard, as between the two potential principal counterpart agencies, the MoJ, as the official repository of all normative acts, is the logical choice. It has in place the human resources for processing all framework legal documents, for creating the metadata record for each document, for filing and storage of documents, and for updating the Codes with their amendments. All of these activities are currently being done by MoJ personnel using manual techniques. The MoJ also now has a generic web site. As a result, the development by NCSC of a generic MoJ web site is no longer a required NCSC deliverable.

If the Office of the President were to become the principal counterpart agency, the NCSC Workplan will need to be revised. In many respects, implementation of the ALPI Project within the Office of the President may be a better choice than implementation within the MoJ. The existing web site of the Office of the President is more extensive than the MoJ's web site, and it currently includes even some framework documents but with, at best, limited searching capabilities. The Office of the President has more resources, particularly ITC resources, than the MoJ, and its personnel have been more responsive and cooperative, to date, with NCSC. The Office of the President may need to hire additional editorial personnel, but there will be limited, if any, need for reengineering of workflow. The workflow, in essence, will follow the exact same procedures and processes that NCSC is currently employing for processing documents, for creating the metadata record for each document, for filing and storage of documents, and for updating the Codes.¹¹ As a result, training of Office of the President personnel should be easier, and require fewer resources to implement.

In addition, there will probably be less need to convert prospective framework legal documents to text format, as it appears that most, if not all of the new documents processed by the Office of the President and published in *Toplusu* are available, or soon will be available, as computer-readable text files. The technology and training required to create each framework document in image format will be the same for both potential principal counterpart agencies; however, this activity is relatively straightforward. One potential negative of having the Office of the President as the principal counterpart agency is the probability that the Ministerial Regulations (that is, the framework documents published in the *Bullitini*) will not be in the initial database

At this stage of the ALPI Project, it is critical that that USAID obtain an executed MOU with a counterpart agency immediately. And while the first choice for the counterpart agency remains the MoJ, the substitution of the Office of the President offers many countervailing benefits.

¹¹ Like the MoJ, the Office of the President currently is using manual techniques for updating the Codes

ATTACHMENT I

ALPI – Legal Database Project

**National Center for State Courts
Indefinite Quantity Contract for
AEP-I-00-00-00011/12/13-00**

USAID/Caucasus/Azerbaijan

**PROJECT INITIATION
ASSESSMENT REPORT 2004**

28 JULY 2004

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INTRODUCTION

In support of Strategic Objective 2.1 “Civil Society Better Organized and Represented,” USAID/Azerbaijan, through its contractor, the National Center for State Courts (NCSC), has embarked upon a Legal Database Project which will promote transparency in governance through increased access to the Legal Framework documents of Azerbaijan. The project commenced in June 2004 and has an expected duration of fifteen months.

The purpose of the present report is to review, validate, and update the findings of the pre-award assessment report prepared in July 2003 (reference 1) and to refine the project approach and plan suggested in the NCSC proposal (reference 2). The update results from initial meetings of the NCSC Assessment Team with USAID, the Azerbaijan Ministry of Justice, the Executive Office of the President, and other findings made during project mobilization activities in Baku, Azerbaijan between June 23 and July 28, 2004.

The Assessment Team had three objectives:

1. to conduct a *stocktaking review* of the specific circumstances of the country especially insofar as the technical capabilities and capacities are concerned of both the public media (such as the *Azerbaijan*, the *Qanunvericilik Toplusu*, and *Respublika* publications), and the institutions with which project staff will work;
2. to put together a database design and *project specifications* for the legal database;
3. to carry out an *economic feasibility study*, for the purpose of determining local resources (human and material) and local abilities to support the technological solutions that will be developed and in place by project end.

The study also examined specific needs in terms of locally available IT expertise and equipment, as well as those relating to personnel, training and costs associated with the expansion access to legal framework documents nationwide.

Project Goals

The purpose of the project is (1) to develop a timely, accurate and complete database containing the official text of the governing framework legal documents, and (2) to make this database readily available and easily accessible over the Internet, supplemented as necessary by CD-ROM for use in locations that do not have access to the Internet. The principal counterpart agency is the Azerbaijan Ministry of Justice, which at present is the *de facto* central repository of all framework documents. A secondary counterpart agency is the Executive Office of the President of the Azerbaijan Republic.

Organization of this Report

The *stocktaking review* portion of the report presents Assessment Team findings in context of the tasks identified in the NCSC proposal. Needed changes to the task plan are identified. Following these findings, a revised project Workplan is presented together with initial design and *specifications* for the project database and supporting application functions. Finally, *economic feasibility* issues are addressed.

STOCKTAKING REVIEW

Summary

In general, the current assessment reaffirms the findings and supports the substantive conclusions of the 2003 Assessment Report. As a result, the overall project approach, and in particular the set of tasks identified in the USAID RFP and the NCSC proposal, remains a sound framework for elaborating the project.

Closer inspection reveals, however, that the MOJ lacks the resources to contribute substantially to the development of the required technology or to contribute staff resources to data capture and editing of retrospective framework materials. As a result, the project should expect to outsource much of the systems development, document capture and editing, and, perhaps, substantial portions of system operations (e.g. application maintenance and web site hosting) once the system is installed in the MOJ.

The NCSC proposal identified six principal tasks required to achieve project objectives:

- Task 1. Create a Ministry of Justice Generic Website on the Internet
- Task 2. Automate the Ministry of Justice's Existing Operations for Registering, Recording, Classifying and Archiving the Framework Documents
- Task 3. Automate the Ministry of Justice's Existing Operations for Codifying those Legal framework documents that are Subject to Amendment and Repeal
- Task 4. Implement the Database on the Internet
- Task 5. Automate the operations in the President's Office for codifying legal framework documents, and establish a document transfer capability between the President's Office and the Ministry of Justice
- Task 6. Public Awareness Activities

Specific findings of the current Assessment Team are reported in the context of these tasks.

Specific Findings

TASK One: Create a Ministry of Justice Generic Website on the Internet

A Ministry of Justice (MOJ) website will be required to host an interactive database of legal framework documents. A basic, informational MOJ web site now exists and may be viewed at <http://www.justice.gov.az>. Portions of the website are available in the Azeri, Russian, and English languages. It appears that website hosting is outsourced, but this remains to be confirmed.

Recommended Changes to Task Plan:

Since a basic MOJ website already exists, it is unnecessary to invest immediate effort in its creation and support. Rather, website content, capabilities, and support resources will be examined more closely at a later point in the project after an initial project database is created and becomes ready for web hosting.

TASK Two: Automate the Ministry of Justice's Existing Operations for Registering, Recording, Classifying and Archiving the Framework Documents

The Ministry of Justice Department of Legislation (MOJ/DL) is the designated repository for legal documents for the Government of Azerbaijan. Mr. Adil Aliyev is

the Department Director and supervises 15 employees. Physical space for document storage is very limited; currently, the Department estimates that allocated space will be exhausted within a year.

A basic LAN exists in MOJ/DL but its precise extent and capabilities are unknown. The Department Director has a modern PC with LCD monitor, and there is a PC in a separate office acting as a server for a private sector legal database¹ to which the MOJ subscribes. No PC were evident in the document registration and storage offices, however. The extent and nature of technical support for the LAN and WAN infrastructure within the MOJ is presently unknown.

Recommended Changes to Task Plan:

During initial meetings, it became clear that the Ministry does not have the necessary resources to supply technical personnel to assist in the development of the project database, nor administrative personnel for the capture of retrospective documents necessary to populate the database. Consequently, project materials will be developed as a “prototype” at the NCSC/Baku offices which will serve as a demonstration and initial training facility for MOJ and President’s Office staff. When the final system is developed and approved, equipment and software will be installed in the MOJ Department of Legislation, formal training conducted, and initial operations monitored to insure sustainability of project achievements.

This task was originally conceived to address all legal framework documents that are planned to eventually reside in the project database: Parliamentary laws, Presidential Orders and Decrees, Council of Ministers Resolutions, Ministerial regulations (published by the MOJ in the digest, *Bulletini*), the 1995 Constitution, acts adopted by referendum, and international and CIS treaties. However, as described in the next section under Task 3, the overriding priority is an electronic database containing the Parliamentary laws and amendments thereto, and the initial effort of this task will be dedicated to capturing these acts in the initial project database.

The revised Workplan identifies two principal components necessary to complete this task:

1. Capture the Legal Digest (*Qanunvericilik Toplusu*) in electronic Image and Text Form, creating an initial electronic database of Azerbaijan law;
2. Develop a Prototype Registering Application sufficient to keep the initial database current as new legislation is passed into law.

These components are a necessary and minimum prerequisite for completion of Task 3.

TASK Three: Automate the Ministry of Justice’s Existing Operations for Codifying those Legal framework documents that are Subject to Amendment and Repeal

The Ministry emphasized that their most urgent need is an automated capability to codify documents. This work was observed to be performed manually, literally cutting excerpts from paper copies of amending laws and pasting them into published law code books while striking out removed text with a pencil. Indeed, this identical method was observed repeatedly and consistently among lawyers in the President’s Office as well as in private law offices; one can only imagine the vast amount of duplicate work performed within the Azerbaijan legal community to insure that an accurate and up-to-

¹ Provided by Vnesh Expert Systems, www.vescc.com, www.vneshexpertservice.com

date text of laws is readily available. As a result of this MOJ priority, and the clear need for reliably codified laws in the larger legal community, the project Workplan has been revised to focus on delivering results for this task as a priority.

As noted above (and see also Task 4), cut and paste codification also done by staff at the President's Office. Currently, there appears there is no officially-designated "code reviser" in Azerbaijan. It is presently assumed that this responsibility will be formally recognized and assigned to the MOJ/DL once the technical capacity has been developed and implemented at the MOJ. Such a formal assignment of new responsibility will likely require enabling legislation together with the provision of additional resources necessary to carry it out. (see also the discussion concerning parallel codification under Task 5).

Recommended Changes to Task Plan:

The revised Workplan identifies two principal components necessary to advance this task:

3. Develop a Prototype Codifying Application, and
4. Conduct iterative reviews with both the MOJ and the President's Office to refine and, ultimately, approve the Codification Prototype.

TASK Four: Implement the Database on the Internet

A key objective of the project is broad public access to the legal database. High-availability internet access to the database is anticipated for complete and up-to-date legal information, supplemented by periodic publication and distribution of the database on CD-ROM to serve remote constituencies without reliable access to the internet.

In the 2003 Assessment Report, it was suggested that the project utilize regional information centers in locations remote from Baku where internet access may be supported and/or where a legal database CD-ROM may be hosted. The current Assessment Team discovered that a USAID program carried out by the National Democratic Institute (NDI) has proposed to set up similar information centers with computer equipment based on an apparently successful model used in Tajikistan. The NCSC project will follow this effort and explore the opportunity to utilize its services at the appropriate time.

The state telephony infrastructure does not appear good, limiting remote access to the internet and compromising dial-up access even in Baku. The Assessment Team notes, however, that internet technology is rapidly expanding in Baku. Internet Service Provider (ISP) services are available from state telephone office as well as several private vendors such as Azeronline, AzEuroTel, and others. AzEuroTel offers dial-up services, leased line services (fractional E1), and has reportedly recently introduced a wireless Metropolitan Area Network (MAN) in Baku all of which provide means to connect to the Internet. It is expected that internet access will improve outside of Baku as well.

Recommended Changes to Task Plan:

No essential changes to the task plan regarding Internet and CD-ROM publication of the legal database are anticipated.

It is possible that an interim, limited-function database product may be published and distributed on CD-ROM or made available on the internet. The initial product may be followed by subsequent versions containing additional documents and/or searching

features as development progresses. This possibility will be further assessed upon completion of the initial, prototype database.

TASK Five: Automate the operations in the President's Office for codifying legal framework documents, and establish a document transfer capability between the President's Office and the Ministry of Justice

In contrast to the MOJ, the Executive Office of the President appears to have developed and implemented a substantially more capable Information Technology (IT) infrastructure. Mr. Elmir Velizadeh is the designated IT Director, and several departments use IT for document development and management.

Mr. Velizadeh concedes, however, that some departments constitute “islands of technology” using different methods and procedures for document management with few common standards and little, if any, regulated electronic communication between departments. For example, the Department of Protocol distributes Presidential Decrees and Orders, documents that are used to promulgate new laws passed by the Parliament. The Department of Protocol distributes these documents to the Azerbaijan newspaper for the initial publication that is required for a law to become effective. Meanwhile, the Department of Publications and Translation has responsibility to prepare and distribute the legislative digest, *Qanunvericilik Toplusu*, the monthly compendium of laws, orders and decrees. There is also a separate Department of Legislation and Legal Expertise which reviews the text of laws passed by the Parliament and prepares the necessary Presidential Decrees which cover and implement the laws. Currently, these departments operate autonomous information systems with no electronic document transfer between them. More research is necessary to fully illuminate and perhaps help streamline the current processes for document management within the Executive Office of the President.

Further development in this area is underway through the efforts of the EU TACSIS program which is implementing a IT system to support the drafting of legal documents in Parliament. This program is reportedly installing a server in the President's Office, as well as servers in the Parliament and Council of Ministers Offices, for the purpose of electronically sharing and coordinating document production and distribution. Clearly, the present project must at minimum coordinate with and perhaps interface with this system.

Transfer of documents from the President's Office to the MOJ in electronic form is an useful project objective. It is faster, of course, than the conveyance of paper documents and offers the opportunity for documents to reach the database and the public more quickly. Electronic transfer also offers efficiency for the MOJ by possibly eliminating the need to scan and convert paper documents to electronic image and text formats. The President's Office voiced appropriate concern about security and integrity of electronic documents, however, and this issue must be carefully addressed by the project if electronic transfer is to be implemented.

Finally, it is unclear at the moment if the President's Office will be content to delegate complete responsibility for the official codification of laws to the MOJ or will wish to perform some or all of this work in parallel, yielding its own version of codified laws. From a technical standpoint, the issue is moot: the same technology developed for the MOJ may be installed in both institutions to automate and support the activity. And given clear and unambiguous direction contained in amending laws, the result of codification should be the same.

Parallel and independent codification activity does provide the opportunity to cross-check and validate the editorial work performed by each group, hopefully identifying and correcting inadvertent editorial errors which may occur. Problems may arise, however, if differences in a codified law result from differing interpretation of Parliamentary direction, and appropriate political mechanisms must be developed to resolve such cases if and when they arise.

Recommended Changes to Task Plan:

No essential changes to the Task Plan are anticipated at the present time.

Both the MOJ and the President's office will be invited to review and contribute to the development of the Prototype Codifying Application. Both will participate in the development of formal requirements for the Production System and the approval of both should be invited.

TASK Six: Public Awareness Activities

Recommended Changes to Task Plan:

None.

Further Work

At the present time, assessment of a number of issues is incomplete. Some of these topics require more intensive work with the counterpart agencies than has been permitted to date; other topics first emerged during the initial discussions.

- Assess the nature, capabilities, and extent of the MOJ and President's Office IT infrastructure including personnel support, network (LAN, WAN), software, and equipment configuration. Are IT standards or strategic IT plan documents published, either for the MOJ or for the Government of Azerbaijan (GoAz) generally?
- Confirm the current methods, responsibilities, and costs for hosting the MOJ website.
- Assess and document the current processes for document management within the Executive Office of the President. (*e.g. Which department forwards documents to the MOJ?*)
- Assess the objectives and activities of the European Community TACIS project related to legislative documents; evaluate opportunities to utilize electronic documents prepared by this system and, perhaps, to utilize other technologies developed by this project.
- Collaborate with the President's Office on issues of the security and integrity of electronic documents to facilitate implementation of electronic document transfer between the President's Office and the MOJ.

REVISED WORKPLAN: DESIGN APPROACH AND SPECIFICATIONS

Summary

Following the stocktaking review, the original tasks (above) have been subdivided and slightly re-sequenced into nine steps (below). A brief description of the objective of each step is provided as well as a reference to the original task to which it contributes. Each step is further described in following sections.

Sequence of Major Steps

1. Capture Legal Digest (*Qanunvericilik Toplusu*) in Image and Text Form, creating a Prototype Database with a Basic Query (Finder) Application (ref. TASK 4)

The objective of this step is to create an initial, prototype electronic database of the most critical legal framework documents: the Parliamentary laws—particularly the fundamental legal codes subject to codification together with subsequent amendments, and the enabling Presidential Orders and Decrees. Source material for this database is most conveniently and completely assembled in *Qanunvericilik Toplusu*; it is proposed to scan these documents, convert the scanned documents to text using OCR technology, capture metadata contained in the source documents, and equip the resulting database with a basic Query application that may be used to retrieve documents from the database based upon document metadata.

2. Develop a Prototype Application to Register/Record Documents (ref. TASK 2)

The objective of this step is to create an initial, prototype computer application (i.e. set of computer programs) which will maintain the database created in step 1 (i.e. add, change, and delete documents in the database) in order to keep the database current after new legislation is passed and new legal documents are published in *Qanunvericilik Toplusu*.

This prototype may be expanded to demonstrate automated support of the activities performed by the MOJ/DL when new documents are received from the President's Office to be registered and stored in the repository.

3. Develop Prototype Codifying Application (ref. TASK 3)

The objective of this step is to create an initial, prototype computer application which will automate the “cut and paste” operations currently performed when amendments to previously adopted laws are passed by the Parliament. Automating this process is the most desirable and important deliverable of the project.

4. Develop Prototype Query/Retrieval Application (ref. TASK 4)

The objective of this step is to refine the basic Query application supplied in step 1 to include features added by the prototypes in step 2 and 3. Such additional features include additional document metadata entered in the document registration and recording process, and retrieval of codified law text (e.g. the basic code with all amendments applied as of a user-selected effective date).

5. MOJ & President Office Review & Approve Prototype(s)

The objective of this step is to engage the client community in a comprehensive review of the prototype database and application(s) and to obtain agreement that the application prototypes perform the essential functions in an acceptable manner. This step will involve initial client training to familiarize MOJ and President office personnel with the system and allow the clients to constructively participate in planning for the implementation of the final system.

6. Develop Formal Requirements for Production System from Prototypes

Based upon client agreement reached in step 6, formal requirements for a production system will be developed based on the prototyped functions, functions identified by NCSC and the client as needed but not prototyped, and standard application maintenance functions and performance criteria required of robust production applications. Bid documents will be prepared. Construction of the production system by an IT vendor will be tendered and awarded.

7. Build Production System

It is expected that a local IT vendor will construct the production system and be retained to provide warranty and application maintenance services, as required, following implementation of the system in GoAz departments. All rights to the production system code will revert to the GoAz. In the future, the GoAz may elect to continue to outsource maintenance services to the original developer, award a maintenance contract to another vendor, or assume maintenance responsibilities itself.

8. Implement Production System at MOJ & President Office (ref. TASK 2,3,5)

Implementation activities will include production equipment specification, acquisition, and installation, system and application software installation and testing, codification of additional legal codes as necessary and population of the initial production database, training of client staff, and initial operations including a pilot period of 60 to 90 days prior to formal evaluation, acceptance, and turnover.

9. Implement Final Public Access via Internet & CD-ROM (ref. TASK 4,6)

When database maintenance and support operations are thoroughly established and institutionalized in the MOJ/DL, a web-accessible database for public access will be periodically extracted from the central production database and hosted on a web server for public access. A CD-ROM publication and distribution schedule will be implemented. These activities will be accompanied by an appropriate public awareness campaign.

Step 1. Capture Legal Digest in Image and Text Form—Prototype Database/Basic Query (ref. TASK 4)

The objective of this step is to create an initial, prototype electronic database of the most critical legal framework documents: the Parliamentary laws—particularly the fundamental legal codes subject to codification together with subsequent amendments, and the enabling Presidential Orders and Decrees. Source material for this database is

most conveniently and completely assembled in *Qanunvericilik Toplusu*; it is proposed to scan these documents, convert the scanned documents to text using OCR technology, capture metadata contained in the source documents, and equip the resulting database with a basic Query application that may be used to retrieve documents from the database based upon document metadata. It is expected to outsource the creation of this database to a qualified vendor.

1. Purpose:

- a. The electronic capture of source documents is required to serve as input data of retrospective legal framework materials for the subsequent development of prototype applications (see step 2 and step 3) and, eventually, to serve as input into the target production database.
- b. The database may serve as “Version 1.0” of a Public Access Database. It should be able to be distributed “as-is” via the MOJ internet web server or on CD-ROM and may serve as useful reference to Law schools, information centers, MOJ & other government agencies, etc.

2. Results:

- a. A collection of digital files (a database) containing:
 - i. Document Image pages
 - ii. Document Text pages
 - iii. Document Metadata (for document searching and retrieval)
- b. A basic Query or “Finder” application permitting retrieval of a document (a page set) in either image format or text format. Document retrieval will be based on matching user-entered input criteria with the metadata index; the metadata index may assume a “table of contents” format for selected documents in the database (e.g. for the major legal codes) to facilitate direct access to these documents.
- c. The database and Query application will be created in such a way as to be hosted on CD-ROM. A CD-ROM master will be provided capable of (and licensed for) unlimited duplication; the vendor will provide (number to be determined) copies of the CD-ROM.
- d. The Database must be capable of being transferred from CD-ROM to a computer and must be capable of extension, amendment, and correction by the Prototype Registering Application (see step 2) as additional volumes of *Qanunvericilik Toplusu* are published.

3. Assumptions:

- a. The initial database will contain all of *Qanunvericilik Toplusu* from its inception (in 1996 or 1997) through 30 June 2004 (or the most recent publication date). A clean copy of all issues of *Qanunvericilik Toplusu* must be obtained from the publisher or other sources for scanning.
- b. The physical unit for scanning is one printed page; as a result, the document database will be comprised of one page image per database record. The logical unit of retrieval, however, is a document. Each document may consist of from one to many sequential pages. The number of pages in a document is an attribute of the document metadata.

- c. Text document pages will be generated from image document pages using OCR technology and manually verified to meet pre-established accuracy criteria (e.g. no more than 1 character error/1000 characters converted = 99.9% accuracy). The OCR technology firm ABBYY, and perhaps others, are expected to support Azeri character sets (Latin and Cyrillic) for text conversion.
- d. A metadata indexing file will be created of basic document identifiers which are contained in the source Topplus text, e.g.:
 - i. *Qanunvericilik Topplusu* Citation (Volume Identifier, issue number, etc.);
 - ii. *Qanunvericilik Topplusu* publication date;
 - iii. starting and ending page numbers (or other mechanism to identify a logical document);
 - iv. Document title;
 - v. Document type (Presidential Order, Decree, Law, etc.) from a table of Document Types;
 - vi. Effective Date (e.g. date published in the Azerbaijan Newspaper or other effective date specified in the document);
 - vii. Other metadata elements may be determined after inspection of sample *Qanunvericilik Topplusu* documents; for example: issuing agency document identifier, publisher document identifier, etc.;
 - viii. Pointer (e.g. foreign key) enabling retrieval of image version of document;
 - ix. Pointer (e.g. foreign key) enabling retrieval of text version of document.
- e. The MOJ publication *Bulletini*, containing Ministerial Regulations, may be included in the source document set at the same (or later) time under the same (or later) contract agreement. Metadata for *Bulletini* documents may be slightly different and adjustments must be made accordingly.
- f. The outsourcing tender and agreement should explore the opportunity to obtain, freely use (perhaps limited to Azerbaijan) and modify source code for application software obtained from the vendor. Specifically:
 - i. Rights to source code for Database Maintenance software to add, change, or delete documents from the database. Effectively, this is the software that the vendor itself will use to create the Prototype Database. Such software may serve as the foundation for continued development of the Register/Record prototype in step 2.
 - ii. Rights to source code for the Query software should be obtained from the vendor. This software may serve as the foundation for continued development of the Query prototype in step 4.
- g. Title and rights to reproduce the database and use/develop the software must be transferable and will revert to the Government of Azerbaijan

(GoAz) and assigned to the publisher of *Qanunvericilik Toplusu* or the MOJ/DL.

- h. Target Completion of this step is 30 September 2004 (to be verified)

4. Prerequisite Tasks:

- a. Verify that such an electronic database does not yet exist;
- b. Review proposal with GoAz Toplusu publisher (President's Office)
- c. Review proposal with one or more current private-sector publishers
- d. Identify Imaging vendors capable of performing work, inside or outside Azerbaijan;
- e. Assemble at least 2 copies of complete series of Toplusu and Bulletini in good physical condition;
- f. Select technical formats to be used for imaged documents (e.g. TIFF, JPEG, PDF, etc.) and for converted text documents (e.g. XML, RTF, etc.).
- g. Establish accuracy criteria for OCR conversion;
- h. Establish sampling technique to validate Vendor's work performance in meeting completeness and accuracy criteria;
- i. (Optional) obtain copies of the MOJ registry log book and supply it to vendor's editorial staff to allow vendor to provide additional document metadata not contained in the source documents (e.g. document subject-matter classification according to MOJ criteria). Alternatively, addition of this metadata will be supported by the register/record prototype application (see step 2), and undertaken by project editorial staff prior to implementation;
- j. Prepare, distribute tender including sample documents;
- k. Evaluate bids and award contract.
- l. Nominate receiving/maintaining agency in GoAz for database distribution.

Step 2: Develop Prototype Application to Register/Record Documents (ref. TASK 2)

The objective of this step is to create an initial, prototype computer application (i.e. set of computer programs) which will maintain the database created in step 1 (i.e. add, change, and delete documents in the database) in order to keep the database current after new legislation is passed and new legal documents are published in *Qanunvericilik Toplusu*.

This prototype may be expanded to demonstrate automated support of the activities performed by the MOJ/DL when new documents are received from the President's Office to be registered and stored in the repository. Such expansion will likely introduce the capability to store new document metadata not contained in the source documents (e.g. subject matter classification). A significant editorial effort may be required to enter such metadata for retrospective documents; however, if this is not done only a marginal decrease in document retrieval capability will be experienced.

1. Purpose:

- a. To keep the prototype database up-to-date with new laws, etc. issued during the period of time between creation of the original prototype database and the final turn-over of the production system to MOJ operations;
 - i. The codification process (see step 3) will have a complete set of amendments available including new amendments created subsequent to the step 1 data capture;
 - ii. the initial database, if distributed, may be periodically updated and re-issued;
- b. To provide software to demonstrate, validate, and refine procedures and the user-interface for adding new documents to the document database, testing approaches to automating existing work performed by the MOJ/DL.
- c. To serve as operational prototype to specify many of the functional requirements for the final, production system to be implemented at the MOJ/DL.

2. Results:

- a. A set of computer programs operating on equipment at the NCSC/Baku offices, that may be used by NCSC editorial staff to maintain the currency of the prototype database and correct database records by adding, changing, and deleting documents and their associated metadata.
- b. Software which may be modified and extended to explore methods and procedures to automate document registry operations at the MOJ/DL.

3. Assumptions:

- a. An initial version of this software may be negotiated to be provided from the vendor selected to perform the work in step 1, Prototype Database creation and subsequently modified by NCSC/Baku IT staff or contractors.
- b. The software will, at minimum, permit the maintenance (add, change, delete) of documents in the prototype database and permit retrieval of the added documents using the basic Query function.
- c. The software will evolve to support entry of extended document metadata to include information not contained in the source document, e.g.
 - i. subject matter classification
 - ii. flags or indicators indicating that the document is a legal code subject to codification (i.e. implying the existence of multiple versions, invoking procedures to generate, display a Table of Contents, and triggering other system features or procedures reserved for codified documents;
 - iii. links to related documents:
 1. amending, amended by

2. implementing, implemented by (regulation)
 3. see also...
 4. etc.
- d. The prototype database, kept up to date, will serve as a principal source of retrospective data to populate the final production database; a one-time data conversion utility program may be required and additional editorial entries performed to yield a complete production database.
- e. The prototype application to enable the project and MOJ/DL to explore methods to automate existing document workflow within the MOJ/DL should support the following functions:
- i. Receiving documents from Presidents Office (and other Ministries). Initially, the prototype must capture all document types that are published in *Qanunvericilik Toplusu*; ultimately, support for adding additional document types² should be developed.
 - ii. registering documents in a logbook, adding document metadata not contained in the source documents, e.g. document subject-matter classification;
 - iii. adding links to Related documents;
 - iv. creating automated methods to replace manually-prepared index cards (and other document identification/retrieval mechanisms),
 - v. posting new documents to database in image format;
 - vi. generating text format documents from images using OCR and providing a mechanism to edit and validate the conversion;
 - vii. posting document metadata to an index for document retrieval.
 - viii. To accomplish the foregoing tasks, it is anticipated that incoming documents will be processed according to the following sequence of activities:
 1. The document will be scanned to create an image format document; the scanning process will be audited for correctness and completeness by a document editor (a staff position);
 2. The image document will be converted to text format using OCR; some metadata elements contained in the source document may be selected for extraction to automatically populate the document metadata record based upon a consistent physical position in the source document;
 3. A document editor (staff position) will visually verify the text document and any generated metadata, correcting the

² classes or types of Legal Framework documents besides Parliamentary laws, Presidential Orders and Decrees published in QT include Council of Ministers Resolutions, Ministerial Regulations, the Constitution, International and CIS Treaties, and perhaps, acts of local governments.

text, and correcting and adding document metadata as needed (including, perhaps, links to related documents already on file, designation of the document as an amendment to a document (e.g. code) on file, designation of the document as a new code subject to codification, etc.);

4. Optionally, a senior document editor (staff position) will validate the work of the document editor;
 5. The image document, the text document, and a document metadata record will be added to the database.
- f. Provide a mechanism for MOJ personnel to experience automated methods for registering, recording, classifying, and archiving documents; provides initial, informal “training” to MOJ staff
 - g. The MOJ/DL will approve the final functional specifications and user procedures for maintenance of the document database;
 - h. (see **Common Characteristics of Prototype Applications**)
4. Workplan
- a. The prototype software will be developed using a combination of NCSC/Baku local IT staff supplemented, as necessary, by contracted expertise.
 - b. An initial “starter” application to maintain the initial database may be supplied by the prototype database vendor selected in step 1. If available, rights to modify and use the application without royalty should be negotiated.

Step 3: Develop a Prototype Codifying Application (ref. TASK 3)

The objective of this step is to create an initial, prototype computer application which will automate the “cut and paste” operations currently performed when amendments to previously adopted laws are passed by the Parliament. Automating this process is the most desirable and important deliverable of the project.

1. Purpose:
 - a. To demonstrate, validate, and refine procedures and the user-interface for applying amending legislation to the basic legal codes³;
 - b. To demonstrate the appearance of amendments (changed text, deleted text) in retrieved documents which have been codified;
 - c. To demonstrate mechanisms for users to independently validate the codification by reference to source documents (image or text) of the original base code and amending documents;
 - d. To serve as operational prototype to specify many of the functional requirements for the final, production system to be implemented at the MOJ/DL.

³ The Major Legal Codes in Azerbaijan are listed in Appendix 3

2. Results:

- a. A set of computer programs operating on equipment at the NCSC/Baku offices, that may be used by NCSC editorial staff to apply amendments to the major legal Codes in Azerbaijan, creating updated retrospective legal documents for inclusion in the initial version of the production database.
- b. Operational and easily revisable application software which may be used to demonstrate, validate, and refine methods, procedures and the user-interface of an automated codification process to be used at the MOJ to apply amendments to legal codes in the future (prospectively).

3. Assumptions:

- a. Methods for applying revisions to base legal codes will be explored. One possible approach is as follows:
 - i. The base document and the amending document will be simultaneously displayed.
 - ii. A mechanism to for a document editor (staff position) to revise the text of the base document by following the instructions contained in the amending document will be supported, including the ability to electronically “cut and paste” text from the displayed amending document.
 - iii. The base document may, in fact, be a previously revised (codified) document.
- b. The original source document (base Code) and amending document(s) must remain intact and unchanged in the database; revisions (or revised source documents) must be stored separately and be retrievable and subject to further revision by subsequent amendments.
- c. Codes will be equipped with a Table of Contents, effectively breaking up a lengthy document into smaller discrete portions (e.g. part/title, article, etc.) to facilitate retrieval, display, and revision. Revisions must be performed and posted to the document database at the document level at minimum; preferably documents will be divided into titles or articles for the purpose of making revisions and posting changes to the database.
- d. The appearance of (possibly multiple) revisions in codified documents (strikeout text, added text) will be tested, alternatives evaluated, and final design decision reached;
- e. The appearance of editorial references and links (e.g. to amending documents, to related documents (e.g. regulations), etc.) will be tested, alternatives evaluated, and final design decision reached;
- f. Access to the image document of the base Code and any amending document for authentication purposes will be tested and validated;
- g. The prototype will demonstrate capabilities and secure MOJ input to and approval of external design prior to committing development resources to a production application; MOJ staff:

- i. may see completed (codified) current version of a Code—all amendments applied to date;
 - ii. may see Code effective as of any past date;
 - iii. will familiarize MOJ staff with process of applying amendments through informal training.
 - h. Will operate and be iteratively refined on computer equipment in NCSC/Baku offices
 - i. Target Completion 31 October 2004
 - j. (see **Common Characteristics of Prototype Applications**)
4. Workplan
- a. Select a sample Code (e.g. Land Code) for development purposes; inventory and assemble source documents of base code and all legislative amendments;
 - b. Create image documents and convert to text; (may be obtained from prototype database when available);
 - c. Identify possible related documents: “see also” documents, references to ministerial regulations, etc.
 - d. Develop prototype software using local NCSC technical staff and/or contracted development resources;
 - e. Additional codes (from Prototype Database) may be loaded into the test database for additional review, testing, and evaluation;
 - f. Nominate an agency in the GoAz to act as an “Official Code Reviser” and be introduced and trained in codification procedures (assumed to be MOJ/DL).

Step 4: Develop Prototype Query/Retrieval Application (ref. TASK 4)

The objective of this step is to refine the basic Query application supplied in step 1 to include features added by the prototypes in step 2 and 3. Such additional features include selection of documents based on additional document metadata entered in the document registration and recording process, and retrieval of codified law text (e.g. the basic code with all amendments applied as of a user-selected effective date).

- 1. Purpose
 - a. To provide continued means to search and display documents from the database after the database structure has been revised by prototype development activities in steps 2 and 3.
 - b. To provide software to demonstrate, validate, and refine procedures and the user-interface for navigating, selecting and displaying documents contained in the document database, testing approaches to public access to the database via the internet or on CD-ROM.
 - c. To serve as operational prototype to specify many of the functional requirements for the final, production system to be implemented at the MOJ/DL and hosted on the MOJ website.

2. Results:

- a. A set of computer programs operating on equipment at the NCSC/Baku offices, that may be used internally by NCSC editorial staff to navigate, select and display documents from the prototype database.
- b. An operational yet easily revisable application which may be used to demonstrate, validate, and refine procedures and user-interface for end-user research tool to be used by the public (attorneys, private citizens) to access Azerbaijan Legal Framework Documents.
- c. This prototype application extends the functions performed by the basic Query application (created in step 1) to utilize database features developed in the previous application prototypes (register/record and codify), e.g. additional metadata fields such as subject matter classification, links to related documents, navigation of codified documents including Table of Contents, etc.;

3. Assumptions:

- a. The software should function as a browser-based application accessing documents from a computer-resident (e.g. Web-served) database; In production the application must be capable of being stored and launched from a CD-ROM containing the database;
- b. Initial source code will be obtained from the prototype database vendor during step 1;
- k. Will operate and be iteratively refined in NCSC/Baku offices;
- l. Will serve as operational prototype to specify (many) functional requirements for the final, production system;
- m. Target Completion date TBD;
- n. (see **Common Characteristics of Prototype Applications**)

3. Workplan:

- a. Establish and use “focus group” of representative attorneys, law schools, MOJ, etc. to validate and refine user interface and functional requirements;
- b. Assess any critical limitations of Internet technical infrastructure in Azerbaijan; accommodate limitations to a reasonable degree (it is assumed the infrastructure will improve over time).

Step 5: MOJ & President Office Approve Prototype(s)

The objective of this step is to engage the client community in a comprehensive review of the prototype database and application(s) and to obtain agreement that the application prototypes perform the essential functions in an acceptable manner. This step will involve initial client training to familiarize MOJ and President office personnel with the system and allow the clients to constructively participate in planning for the implementation of the final system.

1. Purpose:

- a. Allow MOJ and President office management and staff to view and experiment with the application prototypes in an informal, collegial and collaborative environment;
 - b. Reduce or deflect resistance to change in the target organization; demystify technology and generate enthusiasm for potential new ways of performing existing work;
 - c. Secure approval that prototype application functionality is sufficient to meet the needs of the target organizations; identify and resolve deficiencies through further prototype development, refinement, or negotiation;
 - d. Create collaborative partners for planning the implementation of the production technology in the target organizations.
2. Results:
- a. Agreement with GoAz that the prototypes may be used as fundamental functional specifications for the production application;
 - b. Early identification and discussion of additional functional requirements not prototyped, e.g. user roles and database access permissions, database backup and recovery functions, etc.
 - c. MOJ and President's Office knowledgeable and motivated to assist in planning implementation of the production system, helping to guarantee a successful installation.
3. Assumptions:
- a. TBD
4. Workplan:
- a. TBD

Step 6: Develop Formal Requirements for Production System from Prototypes

Based upon client agreement reached in step 6, formal requirements for a production system will be developed based on the prototyped functions, functions identified by NCSC and the client as needed but not prototyped, and standard application maintenance functions and performance criteria required of robust production applications. Bid documents will be prepared. Construction of the production system by an IT vendor will be tendered and awarded.

1. Purpose:
 - a. Develop specifications necessary to engage a development contractor to successfully and efficiently build a robust, production system to be installed in GoAz offices.
 - b. Plan for the implementation of the system.
2. Results:
 - a. Tender documents (commercial and technical specifications) for constructing Production System;

- b. Migration plan for moving contents of prototype database into production database(s);
 - c. Action plan to codify remaining codes;
 - d. Action plan to capture remaining legal framework documents not part of the prototype database⁴;
 - e. Action plan to complete entry of missing document metadata as needed (subject matter classification, document links, etc.);
 - f. Implementation Plan for equipment, training, and commencement of production operations at MOJ;
3. Assumptions:
- a. MOJ Evaluation and approval of Prototype;
 - b. President's Office Evaluation and approval of Prototype;
4. Workplan
- a. Evaluate TACIS system and other systems identified to be affected:
 - i. TACIS interfaces to Production System (e.g. in the President's Office) and
 - ii. The possibility of utilizing and extending existing TACIS architecture and software to meet LDB Project Requirements;
 - b. Functional requirements specification:
 - i. Codify process (done in prototype);
 - ii. Registry process (done in prototype);
 - iii. Query process (done in prototype);
 - iv. Define user classes and privileges (security system);
 - 1. Specify change authorization and document control procedures;
 - 2. Identify additional document metadata, if any, for addition, changes, deletion, of image, text, and metadata;
 - v. Specify final database structure (production, central, extract)
 - vi. Specify database backup and recovery procedures;
 - vii. Define public access maintenance issues:
 - 1. Assign web-site maintenance responsibilities;
 - 2. Assign CD production and distribution responsibilities;
 - viii. Specify document database error correction methods and procedures;
 - c. Technical Considerations:
 - i. Conduct evaluation and plan for remedy of physical environment at MOJ;

⁴ Estimated volumes of major legal framework documents is provided in Appendix 2.

- ii. Identify target production equipment specifications;
 - iii. Identify target systems software and application software development environment;
 - iv. Identify additional functional specifications (e.g. production scanning procedures & staff assignments; document log book production, etc.);
 - v. Establish system performance specifications (uptime, response time(s), database maintenance and recovery time, etc.)
 - vi. Establish software security specifications (e.g. characteristics of separate production, central, and user-access databases) and migration of data between them,
 - vii. Define technical web site hosting and end-user access issues;
 - 1. Define frequency of CD-ROM versions,
 - 2. Define publication and distribution arrangements: frequency, scope, etc.;
 - viii. Assess technical capabilities of MOJ for network administration, database administration, ongoing staff training and support, application software maintenance; develop remedial action plan, if needed;
 - ix. Identify technical support requirements and determine strategy for provisioning (e.g. outsource, in-source, combination);
- d. Database Content Considerations:
- i. Arrange for codification of all additional codes to bring production database sufficiently current for turn-over to MOJ;
 - ii. Arrange for incorporation of additional document types into the database and identification of metadata differences (e.g. Presidential Orders, Decrees, Council of Ministers Resolutions, Regulations, Treaties, etc.), establish pre-turnover requirements for entry, if needed;
 - iii. Identify sources & methods to obtain additional document types; obtain as necessary;
 - iv. Identify method(s) to capture additional metadata elements as required (e.g. document classification);.
- e. Prepare detailed system implementation plan & schedule: database content completion plan; staff acquisition and training, equipment installation, & testing; software installation & testing; cut-over to “live operations” to begin production capture of incoming documents;
- f. Develop project quality assurance and monitoring plan to insure contractor compliance with specifications and schedule.
- g. Prepare, distribute tender including sample documents;
- h. Evaluate bids and award contract.

Step 7: Build Production System

It is expected that a local IT vendor will construct the production system and be retained to provide warranty and application maintenance services, as required, following implementation of the system in GoAz departments. All rights to the production system code will revert to the GoAz. In the future, the GoAz may elect to continue to outsource maintenance services to the original developer, award a maintenance contract to another vendor, or assume maintenance responsibilities itself.

1. Purpose:
 - a. Prepare the production version of the application software modeled through the prototypes.
2. Results:
 - a. Tested and delivered application software installed by the vendor in the production environment;
3. Assumptions:
 - a. TBD
4. Workplan:
 - a. Monitor development, participate (with GoAz personnel) in testing and quality assurance activities;
 - b. Complete database content, as necessary, in prototype (or production) database;
 - i. Codify additional remaining codes;
 - ii. Complete document metadata
 - c. Design and implement method to migrate prototype DB into production DB;
 - d. Monitor overall implementation plan and revise schedule as necessary;

Step 8: Implement Production System at MOJ & President Office (ref. TASK 2,3,5)

Implementation activities will include production equipment specification, acquisition, and installation, system and application software installation and testing, codification of additional legal codes as necessary and population of the initial production database, training of client staff, and initial operations including a pilot period of 60 to 90 days prior to formal evaluation, acceptance, and turnover.

1. Purpose:
 - a. Complete overall objective of project;
2. Results:
 - a. GoAz agencies will demonstrate the skills needed to operate the system continuously and successfully;

- b. Fully realize the major overall project goal (1): to develop a timely, accurate and complete database containing the official text of the governing framework legal documents;
 - c. NCSC may begin to demobilize project development and support;
3. Assumptions:
- a. TBD
4. Workplan:
- a. Follow detailed implementation plan developed in step 6 and 7;
 - b. Adjust as necessary;

Step 9: Implement Final Public Access via Internet & CD-ROM (ref. TASK 4,6)

When database maintenance and support operations are thoroughly established and institutionalized in the MOJ/DL, an web-accessible database for public access will be periodically extracted from the central production database and hosted on a web server for public access. A CD-ROM publication and distribution schedule will be implemented. These activities will be accompanied by an appropriate public awareness campaign.

1. Purpose:
- a. Implement public access to the production database;
 - b. Migrate public use of any prototype public access database previously released and discontinue support;
2. Results:
- a. Fully realize the major overall project goal (2): to make a timely, accurate and complete database containing the official text of the governing framework legal documents readily available and easily accessible over the Internet;
3. Assumptions:
- a. The MOJ/DL will be comfortable with the timeliness, accuracy and completeness of the database and its ability to sustain it at equal or greater quality on a continuing basis;
 - b. The MOJ/DL is supportive of sponsoring public access to its work-product and is committed to and capable of promoting and increasing public use;
4. Workplan:
- a. Implement/activate mechanisms developed to populate an extract database for web access;
 - b. Implement a regular release schedule to “refresh” the extract database frequently;
 - c. Test and verify security provisions (e.g. firewall) designed to protect the internal production and central databases;

- d. Plan and implement a public awareness and training campaign in conjunction with the MOJ/DL and President's Office;
- e. Monitor and measure public response and use of the database; report findings and adjust strategy to achieve objectives;

Common Characteristics Prototype Applications

General

Prototype applications are a software development technique and are used to test assumptions, explore and evaluate external design alternatives, provide initial “training” and experience to client staff, demonstrate key capabilities of a final system, and help secure client approval of final production system capabilities.

Prototypes should be able to be quickly developed and modified. They may be regarded as “throwaway technology”, illustrative in nature, and once they have served their purpose, the prototype programs are simply used to provide functional specifications for developers of the final, production system.

As a result, the prototype programs need not use the target production programming language, database management system (DBMS), or hardware platform. Instead, they may utilize desktop technology, such as MS Access, which may not itself scale to meet the requirements of a production system.

Typically, important but routine functions that must be included in a production system are usually omitted from the prototype since they add unnecessary complexity and are not central to the decisions which the prototypes help make. Such omitted functions may include security features such as implementation of user classes, privileges and password management, database performance, backup and recovery features, complete system navigation features, integration with other sub-systems and functions, system documentation, and user documentation (on-line and off-line).

Instead, prototypes typically address limited functions of particular interest, focusing on user interface, screen appearance and content, and basic screen navigation. Ultimately, as a result of repeated modifications of the prototype programming code in order to rapidly achieve the objectives of the prototype, the code itself is likely to be poorly structured and difficult to maintain.

As a result of the foregoing, management should resist the temptation to use prototype applications in a production setting. Rather, once key design decisions are made using prototypes, it is generally less costly and more efficient to code production programs de novo, employing the prototype as a guide to required functions and using development technology appropriate to the production environment.

Applying a prototyping approach to the LDB project

In the LDB project, retrospective legal framework documents are expected to be electronically captured in a computer database (image and text) through outsourcing (step 1, above). Outsourcing is desirable to accomplish this necessary, but fairly common task quickly and efficiently due to the large volume of retrospective documents. It is reasonable to expect that the vendor may supply software (and the source code for this software) to perform basic query functions and database maintenance (add, change, delete documents). Assuming that this software is based upon appropriate technology (e.g. Visual Basic, MS SQL Server), these programs may be used as initial prototype applications and subsequently modified by project personnel

to accommodate additional features required. Alternatively, initial prototypes may be developed by an independent local contractor (e.g. RISK) and subsequently modified by project IT personnel, or may be developed “from scratch” by NCSC/Baku IT personnel.

ECONOMIC FEASIBILITY

During the 2004 Assessment, the team conducted a brief inventory of technical resources, capabilities, and costs which may serve to illuminate the economic feasibility of the LDB project. This inventory is essentially a byproduct of project initiation activities concerning the acquisition of office IT equipment and services for NCSC/Baku, meetings with vendors, and recruitment efforts for local IT staff.

In general, the team found a rather substantial capability for IT equipment and development services exists in Baku, probably attributable to the recent significant development of the oil sector by foreign corporations. Two of the firms engaged to bid on supply of office IT equipment also appear to have a significant, competent systems development capacity: the RISK Company and BestComp. Other firms are likely to exist, as well.

IT equipment costs in Baku appear to be significantly higher than costs of comparable equipment in the US. IT services cost are likely to be comparable or higher, as well. For example, the server specified for the NCSC offices would cost approximately USD 6,000 in the US while the Baku cost approached USD 10,000. Similarly, the 20" high-resolution monitor specified for graphics workstations was quoted at over USD 1,300; equivalent equipment in the US is priced at under USD 800. These prices may reflect market competition for scarce resources (as well as shipping and logistics cost from manufacturing and supply centers), again attributable to the effect of the oil sector.

Personnel costs of hiring IT personnel appear to be significantly lower than comparable costs in the US. It is impossible at this time, however, to assess the quality of such personnel. The quality of IT education in universities may be questionable, since considerable credit seems to be granted by local Universities for mere participation in the workplace. Insisting on vendor certification (e.g. Microsoft Certification) for certain disciplines would appear to be wise, however, certification is generally an expensive process and few of the solicited IT resumes evidenced formal certification.

APPENDIX I: References

1. Assessment Report for a “Codified Legal Database of Azerbaijan’s Legal Framework”, ARD, Inc., Final Draft 14 July 2003 (Approved by USAID/Baku)
2. ALPI – Legal Database Project, National Center for State Courts Indefinite Quantity Contract for AEP-I-00-00-00011/12/13-00USAID/Caucasus/Azerbaijan

APPENDIX 2: Estimated Volume of Legal Framework Documents

Document	Approximate Number since Independence	Approximate Number added per year (as of 2003)	Approximate or Average Size (in pages)	Pages/year published in <i>Toplusu</i> (2003)
The Constitution 1995	1			
International Treaties	250			
CIS Agreements	220			
Acts adopted by referendum	1 or 2			
Laws passed by the Milli Majlis (Parliament)	1000+	125	3-30	1150
Presidential Decrees	1100	250	1.5 (+ attachments)	375
Presidential Orders		250		375
Cabinet of Ministers Resolutions		100-150	4	500
Ministerial Regulations (published in <i>Bulletin</i>)	400 ⁵	225		
Local Executive Regulations (published in <i>Bulletin</i>)	2500			
Estimated Total published in <i>Toplusu</i> since 1995 Constitution	4500		10	Est. 2300/year (2002)

⁵ Since year 2000; not all Ministries represented

APPENDIX 3: Major Legal Codes of Azerbaijan

1. Election Code of the Republic of Azerbaijan
2. Code of Criminal Procedure of the Republic of Azerbaijan
3. Misdemeanor Code of the Republic of Azerbaijan
4. Tax Code of the Republic of Azerbaijan
5. Criminal Code of the Republic of Azerbaijan
6. Family Code of the Republic of Azerbaijan
7. Civil Code of the Republic of Azerbaijan
8. Code of Civil Procedure of the Republic of Azerbaijan
9. Land Code of the Republic of Azerbaijan
10. Labor Code of the Republic of Azerbaijan
11. Timber Code of the Republic of Azerbaijan
12. Water Code of the Republic of Azerbaijan
13. Customs Code of the Republic of Azerbaijan
14. Air Code of the Republic of Azerbaijan

ATTACHMENT II

National Center for State Courts

NCSC/USAID-ALPI Azerbaijan Legal Database Project

From: Kaz Lobaza, Consultant

Hardware and Software Specifications

July 11-21, 2004

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1. Introduction.

Kaz Lobaza, information technology and automation consultant, visited Azerbaijan – July 12-20, 2004 in support of the NCSC/USAID-ALPI Azerbaijan Legal Database Project. The principal purpose of the visit was to develop technical specifications for hardware and software for a Legal Database.

This report is intended to provide an early assessment of the needed hardware, software and associated cost for the proposed legal database. Completion of the following tasks will facilitate the development of firm recommendations.

- i. Technology assessment of MOJ; hardware, software and technical support.
- ii. Completion of functional and technical specifications and the Legal Database application design.
- iii. Selection of the technology tools and database software for the application development.

2. Scope and Objectives.

The primary objective of building a Legal Database System is to organize and systematize the Legal Framework documents¹ established since national independence and thus provide citizens of Azerbaijan with easy access through the internet. The ultimate objective is to ensure that the Ministry of Justice (MOJ), by project end, will possess the institutional capacity to maintain and update a complete, timely and accurate database for distribution on the MOJ web site and on CD-ROMs.

The legal database is characterized by several distinct features which shall ascertain the ability to:

- i. scan the legal government publications; Toplusu and Bulletini ,
- ii. convert scanned images to revisable Text using OCR technology.
- iii. create and change the metadata for Image pages and Text pages. .
- iv. perform quality check and correcting errors in metadata file and Text documents.
- v. perform codification tasks.
- vi. perform data quality control and approval of completed tasks.
- vii. cross-reference text and images, text and text.
- viii. provide internet access to computerized database of legal documents (text and image framework documents, amended and codified Codes documents).
- ix. create Legal Database CDs for distribution.

¹ The following document groups comprise Legal Framework documents: The Constitution, International Treaties, CIS Agreements, Acts adopted by referendum, Laws passed by Milli Majlis (Parliament), Presidential Decrees, Presidential Orders, Cabinet of Ministers Resolutions, and Ministerial Regulations.

- x. extract and move data between databases as outlined in the model architecture diagram.

3. Development Method.

The development method will rely heavily on prototyping. This method was discussed during brainstorming sessions. It was determined that two or even three prototypes will serve as a basis for documentation of functional requirements and development of the production application.

The first prototype will automate the scanning process and create indexes, pointing to the scanned image document pages, and text document pages obtained through OCR.

It will also include several modules:

- i. Module to create and update metadata,
- ii. Module to facilitate review, and correction of text errors, resulting from OCR.
- iii. OCR automation module to generate automatic indexes (pointers) to individual imaged document pages and text document pages,
- iv. Finder module to allow search and retrieval of document in either image format or text format.

If scanning of Toplusu and Bulletini pages is outsourced, the developed software (source code and executable version of the prototype) should be made available to the NCSC/BAKU with the images, the OCR'd text and index data.

During scanning, imaged document pages will be saved on the network drive and indexes for these pages will be assembled automatically.

OCR technology will be applied to convert the imaged document pages to revisable Text (XML format). The resulting Text document will also be broken to a single page and stored on the network drive and an index will result the same as for imaged pages. The indexes can be ASCII delimited, ASCII fixed length or MS Access format. The data elements constituting an index are: Publication Name, Volume ID and Page Number.

Please note: the page number included in the index **must** match the page number of scanned publication; Toplusu or Bulletini.

The Second prototype will automate the codification task. Needed functions include the ability to:

- i. assemble the “current version” document,
- ii. create hypertext links within the displayed document,
- iii. create hypertext links between displayed documents and other documents stored in database,
- iv. imbed links between text documents and images,
- v. display, amended, deleted Text as well as added text in the changed “ current version “ document .
- vi. text search.

Scanned imaged document pages (JPEG) format and OCR'd text document pages (XML format) will remain on the server's hard disk. Each page of image or text will

be a file addressable by a unique name. To assure efficient and quick retrieval of data, the imaged pages and text document pages must be loaded into the database. This will necessitate the development of another software module to automatically populate, imaged pages and text page files stored on a disk, into database.

The third prototype will inform the user of the flow and layout of web screens for retrieval of needed information from the Legal Database. This prototype will aid in developing functional specifications for the production internet software. Since the prototype can present the idea in an easier to understand format than the documented set of functional specifications, input can be obtained from various user groups; MOJ, President's Office, practicing attorneys, or the public.

Hardware and Software Configuration Assumptions.

The following assumptions frame the guidelines for hardware and software specifications proposed in this report:

- 3.1 The Hardware and software specifications for the production system serve as estimates only.

RECOMMENDATION: The best time for the specs review and revision is after completion of production application design and technology assessment at MOJ .

- 3.2. Linux, open source, operating system, or open source database, My SQL, are not widely used in Azerbaijan. The technical expertise and support for Linux as well as My SQL database is inadequate.

The hardware and software specs and cost estimate presented in this document are for Microsoft platform; network operating system MS Server 2003 and Windows XP for workstation. As a database Microsoft SQL 2000 enterprise edition.

- 3.3. **RECOMMENDATION:** The following standards and procedures shall be in place, at Ministry of Justice, before production startup:

- Ms Server 2003 with Active Directory,
- MS Windows XP installed on each workstation.
- Network security including firewall and patch management in place.

- procedure in place to assure the latest patches and fixes are applied to the servers and workstations regularly
- Supported bandwidth at least 100 Mbp from the servers to a desktop.

3.4. The software and hardware support will be satisfactory either through MOJ IT staff or by outsourcing it to a local IT vendor.

RECOMMENDATION: A combination of these two approaches might be the most efficient solution. MOJ might consider hiring a system administrator, with enough technical qualifications to provide the end user support for technology, and act as a liaison between MOJ and the outside vendor contracted for providing IT support. The outsourced services would include database, network and Legal Database application support.

3.5 On completion and use of production Legal Database software, look up abilities, to the legal database, will be available to all Azerbaijan citizens on the internet 24/7.

RECOMMENDATION: Outsource hosting and support of the internet application. The company which currently hosts MOJ's website might be able to offer these services. NCSC will assist MOJ in developing service level agreement for this live internet database.

3.6. **RECOMMENDATION:** MOJ will be responsible for network wiring.

All network cables and connector should meet specifications established for twisted pair cat 5e or higher.

4. Volume Data. Storage Requirements - Estimates.

Azerbaijan - Legal Database Project

Volume and Storage Needs Estimate for Images and Text. Extracted from 2003 Assessment Report

	2003	2004	2005	2006	2007	2008
Images	30000	33000	36000	39000	42000	45000
Image Storage (MB)	1,500	1,650	2,520	2,730	2,940	3,150
Text Storage (MB)	900	990	1,080	1,170	1,260	1,350
Total (MB)	2,750	3,050	3,350	3,650	3,950	4,250

Added storage is also needed, for each server, for installed software, database indexes and database logs. The exact size will be determined at a later time, after initial prototypes are completed. For the purpose of this report it is assumed that additional storage will amount to no more than 7GB.

The following are some basic considerations for imaging:

1. 10,000 pages = 1 CD-ROM
2. 20,000 pages = 1 Gigabyte
3. 100,000 pages = 5 Gigabytes = 1 DVD-WORM (Write-once, 2sided)
4. Average cost to scan a single paper document = \$0.12
5. Average cost of indexing a single document is \$0.04 per
6. Migration is a key factor for imaging: Cost of transferring data from one electronic medium to another to ensure long-term integrity.
7. Image file formats =Group IV, TIFF, PDF, JPEG, PCX

5. Hardware Architecture for Legal Database System.

There are three key factors which make up a hardware configuration.

1. Type of the application, the way the application is designed and works, development tools used, programming quality.
2. Volume and type of data,
3. Number of users.

These three key factors listed above can only be roughly estimated as of now.

Listed below are potential solutions regarding network operating system and database software:

- i. Microsoft Server 2003 and Microsoft SQL 2000 database.
- ii. Open source Linux and My SQL database
- iii. Microsoft Server 2003 and Notes Domino solution.

TACIS Legal Database project is in the early implementation stage. It has been developed by RISK, a local company situated in Baku. The main underlying reason for launching the project was to simplify collaboration between the President's Office, Cabinet of Ministries, Milli Majlis; the Parliament and for assisting in assembling legal documents for publication. Once approved and signed, the documents are published in Toplusu and Azerbaijan Newspaper.

According to Mr. Vugar Mirejev, Project Manager, the IBM Lotus Domino Document Manager 6.01 was used for development of the application.

The Notes Domino project should be carefully reviewed. On the one hand it includes some features that might be useful for the NCSC/USAID project. By using this technology, and the same vendor, we may cut down development time and cost. On the other hand, there is a long-term support issue. The question is how many IT personnel in Azerbaijan can support the Notes Domino application? On top of this, the Notes Domino application is not the best technology, in general, for developing web software and in particular to search legal databases on the internet.

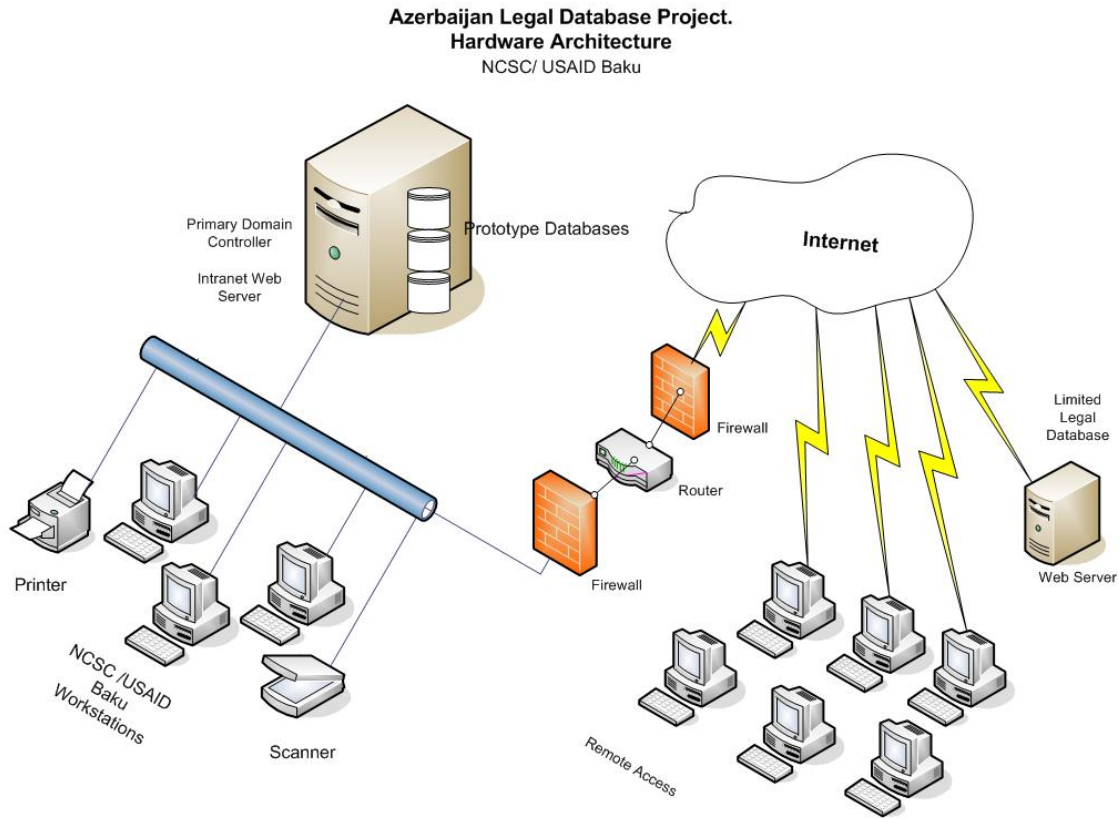
Similar question may be raised about open Source My SQL and Linux. There are limited numbers of installations in Azerbaijan and there is also a limited support base for this technology.

The least risky technology would be the Microsoft suite of products for example server 2003, SQL2000 database, programming and development tools, Word 2003.

Thus, the available support and fairly large base of IT developers, skilled in using the Microsoft tools is the reason for recommending Microsoft as the development platform for the NCSC/USAID Legal Database. This recommendation is merely a speculation at this point which must be confirmed.

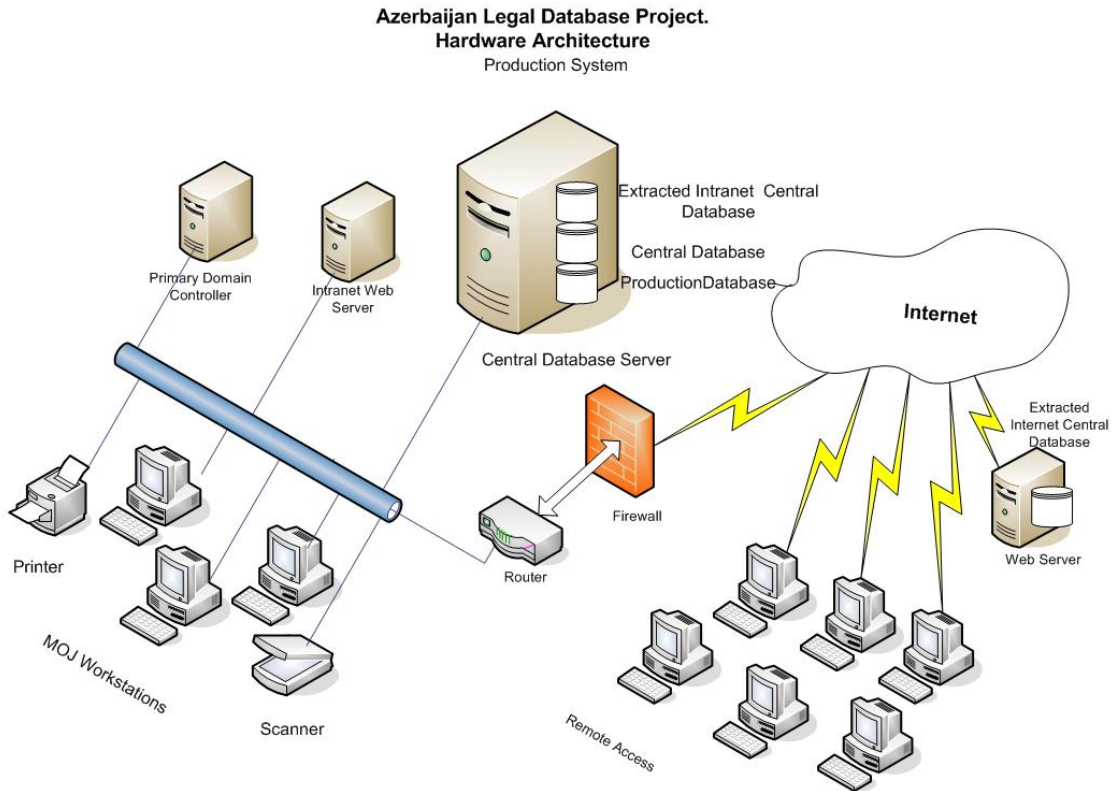
Diagram 1 and Diagram 2 depict hardware architecture for the pilot projects (NCSC/USAID Baku office) and production application respectively.

Hardware Architecture for the NCSC/USAID Baku Office



- Note:**
- A. There is only one server installed in the NCSC/USAID Baku office at present.
The Server will be used as:
 - i. Domain Controller,
 - ii. Host for the prototypes and MS SQL databases.
 - iii. Intranet Web Server.
 - B. The local vendor, who is providing the internet connection for the office, has installed the firewall and the router for all tenants occupying the building.
 - C. The NCSC office has installed its own firewall which is connected with the common router found in the building through the twisted pair CAT 5e cable.
 - D. The Web Server and Limited Legal Database server represents the outsourced services (hardware and software) needed for publishing imaged pages of framework documents scanned and assembled during prototype 1.

Hardware Architecture for the Production Legal Database.



- Note:**
- A. The "Extracted" Central Database Server and Web Server represents the services provided by the web hosting company hired to publish and provide support (24/7) for the legal, production database on the Internet.
 - B. The Extracted Central Intranet Database installed in MOJ data Center will do the following:
 - i. Provide the internal users with a quick and reliable access to the legal database through the **Intranet**,
 - ii. Serve as development and testing environment for the Internet Legal Database application. The Extracted **Intranet** Central Database is a replica of the Extracted **Internet** Central Database.

6. List of Software and Hardware. Cost Estimate.

Additional Software for NCSC/USAID office.

Description	Quantity	Est. Price\$	Total	Function
Adobe Acrobat 6.0 Professional	1	500	500	Prototype/Training Materials
Adobe Photoshop Cs	1	600	600	Training Materials. Web Design
Adobe Premiere Pro 1.5	1	700	700	Training Materials
Adobe InDesign cs	1	700	700	Training Materials
Developer Tools	1	1200	1200	Application Development
		Total	3,700	

Software list for Legal Database System. Production Version

Description	Quantity	Est. Price\$	Total	Function
Windows Server 2003 Enterprise Edition, 32. bit version, 25 CALs	1	4000	4000	Central Database Server
Windows Server 2003 Standard Edition 10 CALs	2	1,200	2,400	Domain Controller and Web Server
20 additional Windows Server 2003 CALs	2	800	1600	Additional Licenses
SQL Server Enterprise Edition	2	11000	22000	Server license +25 user licenses.
ABBYY Fine Reader 70 Corporate Edition	3	500	1500	OCR Software. Supports Azeri Language
Scanning Software	2	800	1600	For scanning Toplus & Bulletini
		Total	33100	

Hardware list for Legal Database System. Production Version

Description	Quantity	Est. Price\$	Total	Function
Server	1	17000	17000	Central Database Server
Server	1	10000	10000	Web Server
Printers	3	1600	4800	2 for MOJ + 1for PO
Scanners	2	4000	8000	High Speed Scanners
Workstations	3	3000	9000	High End Workstations including software
Scanning Software	2	800	1600	For scanning Toplusu & Bulletini
		Total	50 400	

Total Hardware and Software - \$87,200

7. Summary.

Hardware and software configuration presented in this document is not final and will be updated at the later phase of the Legal Database System development. At the same time specific features of needed hardware and software will be itemized.

The list of hardware and software and matching cost estimate, specified in this document, does not include the equipment bought for NCSC Baku office.

The computer equipment installed in the NCSC Baku office will be transferred to Ministry of Justice after completion of the project. This will bring the total cost of hardware and software assigned for this project to over \$120,000.



WORKPLAN

AZERBAIJAN LEGAL DATABASE PROJECT

(ALPI)

2004-2005

DETAILED ACTIVITIES

JUNE 2004 – SEPTEMBER 2005

Contract Number No. AEP-I-00-00-00011-00

Workplan: 2004-2005 Azerbaijan Legal Database Project (ALPI)

The long-term objective of the Azerbaijan Legal Database Project (ALPI) is to develop within the Ministry of Justice (MoJ) and to a lesser degree the Office of the President (collectively, the GoAZ) the institutional capacity to make the framework legal documents of Azerbaijan readily available and easily accessible over the Internet and on CD-ROMs. Having an official database – that is, one made available by the GoAZ – that contains a complete, accurate and timely collection of framework documents is critical to achieving transparency, one of the key benchmarks for a country operating under the Rule of Law.

The ALPI Project commenced in mid-June 2004. In addition to the usual start-up activities, the first order of substantive business was to complete an assessment of the current situation with respect to all requirements required to achieve the ALPI Project's long-term objective. The assessment activity resulted in two reports being generated – the first by USA-based short-term consultant John Sherman (Attachment A), and the second by USA-based short-term consultant Kazimierz Lobaza (Attachment B). Mr. Sherman's report focuses on the broader strategic issues. Mr. Lobaza's report deals primarily with software and hardware specifications.

The starting point in evaluating the two assessment reports, which form the basis for this Workplan, is to understand, first, the nature and scope of the content that will comprise the database; and second, the current environment within the GoAZ as it relates (a) to creating the initial database for all required retrospective documents, (b) to maintaining and updating the database as new framework documents are issued, and (c) to distribute the database over the Internet and on CD-ROMs.

The database will need to contain two distinct, but interrelated types of documents: First, each framework document as a separate entity (the standalone documents portion of the database); and second, the codified Codes. Codified Codes, of which there are 14 (e.g., the Civil Code, the Tax Code, the Land Code, etc.), are an integrated compilation of related framework documents. Each type of document is discussed more fully below.

We start first with the standalone documents portion of the database. The principal framework documents, as set forth in Mr. Sherman's assessment report, are the laws enacted by the Parliament, the decrees and orders issued by the President, the orders issued by the Cabinet of Ministers, and the implementing regulations issued by the various Ministries. The MoJ operates as the central repository for all of these documents, and has the additional responsibility of registering the implementing Ministerial regulations. Not all Ministries submit their implementing regulations to the MoJ for registration, however.

By law, the effective date of a framework document is upon publication, unless otherwise noted. Publication of the laws, Presidential decrees and orders, and Cabinet of Ministers orders and resolutions appears first in a privately published newspaper, usually within a day or two of issuance. Months later these same documents are compiled and published by the GoAZ in its *Toplusu* monthly digest. For those Ministerial regulations that are registered with the MoJ, the process is similar, with their eventual compilation and publication in the GoAZ issued monthly *Bullitini* digest.

Thus, there are three possible official versions for each framework document: first, the stamped copy representing the original document physically signed by the appropriate government official; second, the version that appears in the daily newspaper; and third, the version that appears in *Toplusu* or the *Bullitini*. Although scholars may debate which of these three is the actual governing official version, as a practical matter all three should be, and for the most part are, basically identical in terms of content. For the purpose of creating the initial database, the best available source for each framework document is the one contained in the GoAZ published monthly *Toplusu* and *Bullitini* digests. As government publications, the GoAZ considers the version of the document published in these two digests as more official than the version published in the private newspapers.

Publication of *Toplusu* and the *Bullitini* began in July 1997. We have not as yet been able to obtain from the GoAZ a complete set of either *Toplusu* or the *Bullitini*. Our Workplan assumes that we will be able to obtain at least one full set of each digest. Neither *Toplusu* nor the *Bullitini* contains a cumulative index, making it difficult to find relevant documents. Indeed, the lack of any type of official finding tool, such as a cumulative index, for all published framework documents is one of the reasons supporting the need for the creation and distribution of an official Azerbaijan legal database.

The initial database will need to contain each standalone document published in *Toplusu* and in the *Bullitini*, in both full-text format and image format. An end user will, thus, be able to retrieve a document in either format, with full-text being the preferred and image being used primarily for establishing authenticity. There are some framework documents issued prior to the initial publication of *Toplusu* and the *Bullitini*. However, the bulk of the framework documents, particularly the more critical ones, are contained in the two digests. The earlier documents and those Ministerial regulations that have not been published in the *Bullitini* can be added at any time after the initial database is made available, either by the GoAZ or by one of the private database vendors, or by both.

In addition to having each standalone document in both full-text and image format, the database will need to have a tool to enable an end user to search for and retrieve these documents. This tool will be a “record” for each document, in which the record contains valuable searchable information about the document, such as its citation, its effective date, its title, its classification category, etc. Technologists refer to this type of record as a “meta data” record since it contains data about the data in the document. With the exception of some of the information to be incorporated into each meta data record (primarily the classification category for each document and a cross-reference to any

related document), the creation of the standalone documents portion of the initial database is relatively straight forward.

The codified Codes, the second type of document in the database, are more complex documents than the standalone documents. As noted above, each codified Code, in effect, is an integrated version of the initial framework document issuing the Code with all of its subsequent amendments. For example, the Land Code was initially issued in 1999, and contained 113 Articles grouped into 23 Parts. Since 1999, 8 laws have been issued that have amended 20 of the original 113 Articles. The current version of the Land Code (as of August 2004) will contain the 113 Articles, as amended. In addition, the 9 documents used to create this current version (the original document, and the 8 amending documents) will be available in the database as standalone documents.

Of the two types of documents comprising the database, the codified Codes represent the most important documents in terms of the governing law, and they pose the biggest challenge in developing the database. The creation of each codified Code is a labor intensive process. The person doing the codification work (referred to sometimes in the United States as the “Code Reviser”) must first locate every document that creates or amends a Code. From this inventory, the codifier, using a full-text version of each document, among other tasks, must meticulously “copy and paste” (or “cut and paste”) additions in language, must meticulously “delete” repealed language, must document the changes, must perform quality control checks, must resolve any ambiguities in amendments, and must provide appropriate cross-references to enable a researcher to verify the accuracy of each version of each codified Code.

At present, government officials, as well as others in the private sector, maintain a manual version of the codified Codes. The manual version literally has snippets of information cut out of an amending law (the amending law document may contain numerous amendments to the same or even different Codes, as well as other information). The snippets are then glued or pasted into the Code at its appropriate place, and any repealed language is crossed out. The attached snippets have on their back a handwritten citation to the amending law. Numerous private database vendors in Azerbaijan make codified Codes available, but these are not as rich in added-value information as they need to be, and more important, are not considered as official and hence authentic.

With this basic understanding of the content that will comprise the database, we now discuss in general terms the current environment within the GoAZ as it relates (a) to creating the initial database for all required retrospective standalone documents, (b) to creating the codified Codes, (c) to maintaining and updating the database (both the standalone portion and the codified Codes portion) as new framework documents are issued, and (d) to distribute the database over the Internet and on CD-ROMs.

The GoAZ lacks the human resources to create the initial database content – that is, both the standalone portion (containing each document published in *Toplusu* and the *Bullitini* in full-text format and in image format, together with the meta data record for each document), and the codified Codes portion. The GoAZ appears to have the human

resources and the technical capability required to maintain and update the initial database. The MoJ has an existing web site, which is hosted and maintained by an out-sourced vendor. Although not as yet verified, the MoJ web site, with perhaps some additional capacity upgrades, should be capable of distributing the database over the Internet 24 hours a day, 7 days a week. Transferring the database periodically to CD-ROMs and distributing CD-ROMs is relatively straight forward, and hence, should be well within the capacity of the MoJ.

To meet the ALPI Project's long-term objective of having a sustainable official Azerbaijan legal database within the GoAZ for distribution over the Internet and on CD-ROMs will require a production environment within the MoJ for maintaining and updating the standalone documents portion of the database, for maintaining and updating the codified Codes portion of the database, and for preparing the database (with both portions) for distribution over the Internet and on CD-ROMs. In addition, the Office of the President will need to upgrade its operating environment to support its internal process for codifying Codes. Both of these GoAZ organizations will require training.

In considering the requirements for achieving long-term sustainability, our Workplan recognizes the need to hold to a minimum any reengineering of workflows and the need for a production environment that is within the projected operational capability of the GoAZ, both from a human resource standpoint and from a technology standpoint. We have, in effect, adopted the principle of keeping the design of the proposed legal information system as simple and as straight forward as possible. The fundamental needs of the database content and the fundamental needs of an end user accessing the content, coupled with the limited resources of the GoAZ, are the guidelines we have adopted for determining the required technology to implement the production system. Anything more could easily doom the ALPI Project, and to the extent that something more may be desirable, there are the existing private database vendors to provide the extra added-value.

With this background, we now present a summary of the Workplan. For more detailed information regarding the major activities to be undertaken, see the attached two assessment reports.

The Workplan consists of three basic stages: first, develop and test a prototype; second, based on the prototype, design and develop the production system; and third, implement the production system at the MoJ and the Office of the President.

The first stage, the development and testing of a prototype, will be undertaken entirely within the NCSC/Baku office. Three prototypes will need to be developed: first, a prototype for maintaining and updating the database; second, a prototype for a codified Code; and third, a prototype for searching and retrieving documents in the database. In addition, the standalone documents comprising the initial database (those published in *Toplusu* and the *Bullitini*) will need to be converted to full-text and image format, and a meta data record for each document will need to be created. The full-text and image format conversion and the meta data record creation activities will in all likelihood need

to be out-sourced. Our projected completion date for having all standalone documents in both full-text and image format, with a meta data record for each such document is the end of October 2004.

The prototypes for maintaining and updating the database and for searching and retrieving documents will require software development by a local vendor. This software will, by necessity, be straight forward. A local vendor is necessary to assure ongoing support, and for developing the follow-on software for the productions system. Our projected completion date for the two software applications is the end of November 2004.

The prototype for a codified Code is basically an editorial function. We have selected the Land Code as the prototype, and expect to have it completed by the end of August 2004. Once the GoAZ approves the Land Code prototype, we will undertake the codification effort for the remaining 13 Codes in an as yet to be determined order of priority. We will also train both MoJ and Office of the President personnel in the editorial effort required to maintain and update a codified Code. This training will take place in the NCSC/Baku office. Once the production system is operational, the responsibility for maintaining and updating the codified Codes will become the responsibility of the GoAZ.

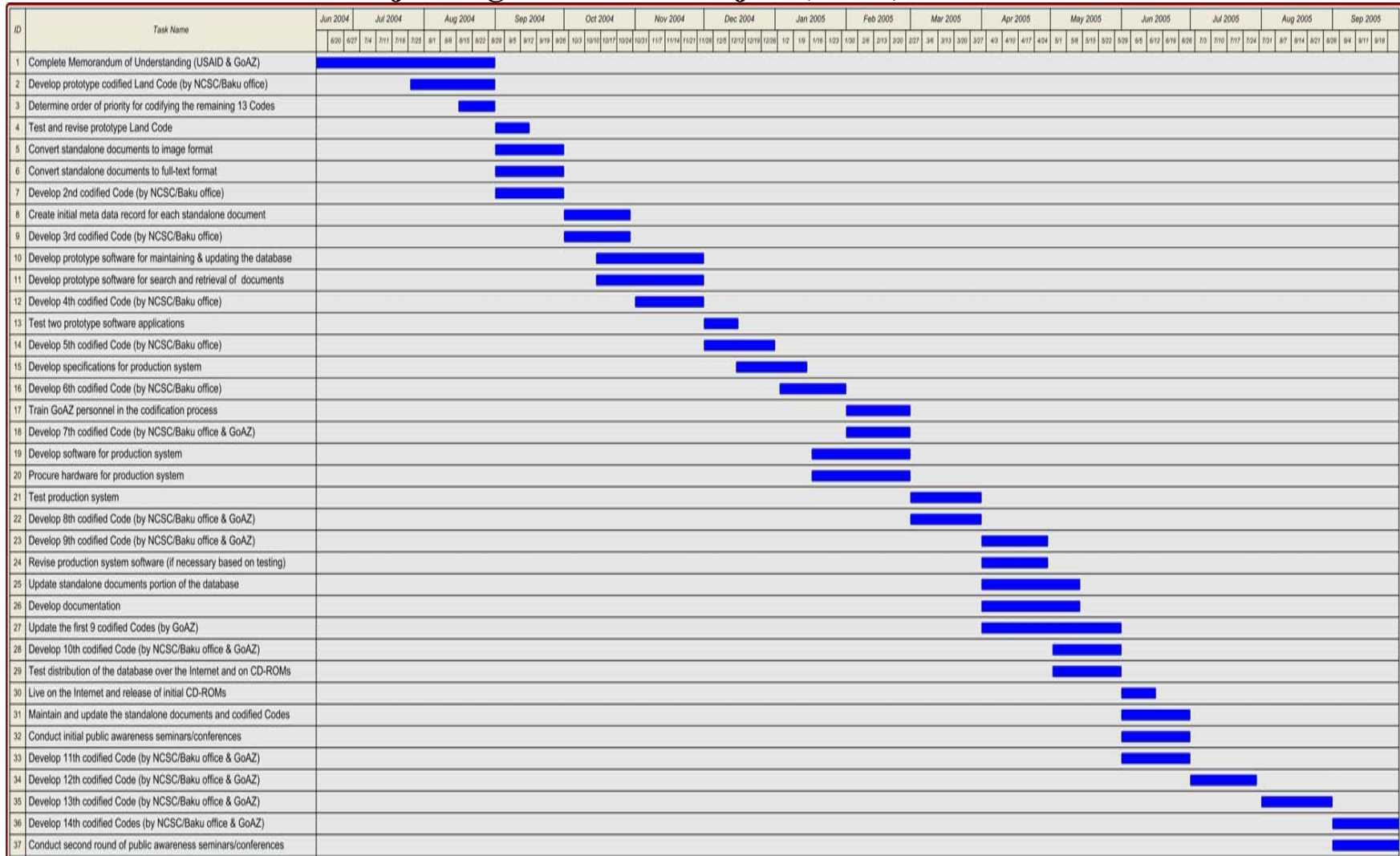
The second stage in the Workplan is the design and development of the production system. This design will be based on testing the software prototype for the maintenance and updating of the database (both the standalone portion and the codified Codes portion) and the software prototype for the search and retrieval function. This testing activity is projected for early December 2004. The design activity should be completed by mid-January 2005, followed by the development of the required production software by a local vendor by the end of February 2005. The additional hardware required to support the production system will also be procured by the end of February 2005.

The third stage of the Workplan – the implementation of the production system – begins once the production equipment and software have been installed at the MoJ and the Office of the President. The projected date for the beginning of the third stage is March 2005. In addition to required testing of the equipment and software, the months of March, April and May 2005 will be used to update the standalone documents portion of the database. This activity will serve the dual purpose of (a) providing ongoing training of GoAZ personnel, and (b) making this portion of the database current (as of a specified date).

Once the training and updating have been completed, the database will be released for public access over the Internet and will be made available on CD-ROMs. The projected date for going “live” is the beginning of June 2005. By this date, we expect to have 10 of the 14 Codes codified and available on the system. The remaining codified Codes will be completed over the summer of 2005, and as previously noted once each codified Code is completed after the system is live, the GoAZ will be responsible for maintaining and updating it.

The next two pages contain (1) a Gantt chart showing the major activities that will be undertaken and their projected start and end dates, and (2) a milestone chart showing the projected dates for completion of critical activities. This Workplan, with its projected deliverables and milestone dates, should be viewed as a work in progress. As such, we will update it as necessary to reflect required modifications or adjustments. At this time it is clear that implementation of the Workplan will require a reallocation of the Level of Effort submitted in NCSC's proposal. The revised Level of Effort, which will be submitted following USAID approval of the Workplan, is estimated to be well within NCSC's proposal, both in terms of number of days and budget.

Azerbaijan Legal Database Project (ALPI) – Gantt Chart



Azerbaijan Legal Database Project (ALPI) – Workplan Milestones

ID	Task Name	Sep 2004	Oct 2004	Nov 2004	Dec 2004	Jan 2005	Feb 2005	Mar 2005	Apr 2005	May 2005	Jun 2005	Jul 2005	Aug 2005	Sep 2005
1	Complete Memorandum of Understanding (USAID & GoAZ)	◆												
2	Develop prototype codified Land Code (by NCSC/Baku office)	◆												
3	Convert standalone documents to image format		◆											
4	Convert standalone documents to full-text format		◆											
5	Create initial meta data record for each standalone document			◆										
6	Develop prototype software for maintaining & updating the database				◆									
7	Develop prototype software for search and retrieval of documents				◆									
8	Develop software for production system							◆						
9	Procure hardware for production system							◆						
10	Update standalone documents portion of the database									◆				
11	Live on the Internet and release of initial CD-ROMs											◆		
12	Conduct initial public awareness seminars/conferences											◆		
13	Conduct second round of public awareness seminars/conferences													◆

**ALPI PROJECT AZERBAIJAN LEGAL DATABASE
FUNCTIONALITY (draft)**

Introduction

The objective of the ALPI Project is to develop the institutional capacity within the Government of Azerbaijan to develop and maintain a database containing the official legal documents of Azerbaijan on an accurate, timely and complete basis, and to make the database available to, and accessible by end users over the Internet and on CD-ROM. The ALPI Project is scheduled to end in September 2005. Once completed, the responsibility for ongoing sustainability will reside with the Government of Azerbaijan, primarily through the Ministry of Justice (MoJ).

Under the recently approved ALPI Project Workplan, the National Center for State Courts (NCSC) will be responsible for creating the most critical initial database content. This content will contain official legal documents issued from November 1995 to the end of March 2005, plus codified versions of 8 of the 17 enacted Codes.¹ The MoJ, working with NCSC, will be responsible for maintaining and updating the database content for all official legal documents issued after March 2005, for completing the codified version for each of the remaining 9 Codes, for maintaining and updating all completed codified Codes, and for adding to the database any other documents that the MoJ decides to include in the database (such as, perhaps, selected legal documents issued prior to November 1995).

NCSC will be responsible for developing the software required to maintain and update the database, for implementing the software on hardware to be procured by NCSC and installed at the MoJ, and for training MoJ personnel in the use of the software and in the maintenance of the hardware. NCSC will be responsible for developing the software required to access the database by end users, for training MoJ personnel in supporting its use by end users, and for training MoJ personnel in distributing the database over the Internet and on CD-ROMs.

The database is scheduled for release to end users in June 2005. The first released database will include only those codified Codes completed to date. By the conclusion of the ALPI Project in September 2005, all 17 codified Codes are scheduled to be completed and available in the database.

This document focuses on the functionality of the database – that is, how the content will be created, maintained and updated, and how an end user will access that content. Based on this functionality, a separate document will be issued that provides the specifications for the software and hardware required for implementation of the database by the Government of Azerbaijan.

¹ See the “Database Content” section that follows for a discussion of the difference between a codified Code and the official legal documents issuing a Code and the amendments to it.

Database Content

Overview. The database will contain two types of documents: (1) the various normative acts that are issued by governing authorities; and (2) codified Codes. For convenience, the normative acts are referred to as “standalone documents”. They are static in that they each have a beginning and ending point. From time-to-time the content in a standalone document may be amended, but the actual official original and all amending documents remain as separate identifiable entities. Accordingly, editorial personnel are not permitted to make any change in an official standalone document, even to correct a typographical error that occurs in the document. The estimated number of standalone documents in the database content being created by NCSC is approximately 5,000.

In contrast to the static standalone documents, codified Codes are dynamic documents in that they are updated by editorial personnel as amendments (that is, deletions, additions, and other changes in language) are made to them. The codified Codes reflect the amendments that are enacted in the standalone documents. To date, Azerbaijan has adopted 17 Codes (e.g., a Civil Code, a Criminal Code, a Land Code, etc.). Next to the Constitution, these Codes are perhaps the most important of all of the governing laws in Azerbaijan. Hence, it is necessary to undertake the editorial effort to incorporate and integrate all amendments, to enable end users to have access to the current, effective version of each Code. This editorial process is frequently referred to as “codifying”, with the output known a “codified Code”.

In addition to the two types of documents, the database will include “metadata” – that is, specific information about each standalone document and each codified Code in the database. The collection of metadata, as described more fully below, will be the basis for searching the database and for retrieving relevant documents from the database. Editorial personnel will be required to create the metadata for each document.

Standalone Documents. The database content being created by NCSC, covering the period of November 1995 to March 2005, will contain all standalone documents that exist in the published volumes of *Toplusu* and the *Bullitini*. *Toplusu* contains the higher level documents – the Constitution, the laws enacted by Parliament, Presidential documents, and Cabinet of Ministers’ documents – and hence, will be given a higher priority. The *Bullitini* contains primarily Ministerial Regulations. International agreements acceded to by Azerbaijan are also included, as they are attachments to laws and Presidential decrees approving laws.

All standalone documents will be included in the database in two formats – full-text and image. An out-sourced vendor is currently in the process of creating the documents that will comprise the database content being created by NCSC in both of these formats. The out-sourced vendor’s principal deliverables are: (1) a separate file for each standalone document containing that document’s published printed pages in image format (“image document”); and (2) a separate file for each document containing that document’s published printed text in text format (“text document”).

Standards have been developed for naming each image document file, for naming each text document file, for image document format (JPEG), for text document format (MS Word), for text conversion accuracy (minimum of 99.9%, based on the number of keystrokes to convert all characters in each document), for dots per inch resolution for images (150 dpi), for copying and pasting graphical materials in image format into text documents where necessary, and for the character set and fonts for the conversion of text documents (Microsoft Unicode for Azeri Latin Palatino Linotype).

Codified Codes. The database will contain the current version of each of the 17 codified Codes. Each codified Code will be a separate text document created by an editorial process. The initial adoption of each Code and all amendments to it are contained in standalone documents. Of the estimated 5,000 standalone documents that will be in the database content being created by NCSC, approximately 177 will be the source for the creation and updating of the 17 codified Codes.

It is important to note that each Code is initially issued as part of a standalone document. Accordingly, the text of the Code in the standalone document that initially enacts that Code is the exact same as the text in the initial codified version of that Code. But the two documents are distinct entities, in that certain information that accompanies the Code in the standalone document is not included in its initial codified Code version, and certain information that is included in a codified Code is not included in the standalone document.

Standards have been developed for naming each codified Code, for the character set and fonts to be used (Microsoft Unicode for Azeri Latin Palatino Linotype), for developing a front-end Table of Contents for each Code, for identifying each place in each Code where an amendment occurs, for identifying the nature of each amendment (i.e., deletion, addition, change), for identifying the standalone document that is the source for each amendment, for identifying all standalone documents that have been used in the codification process, and for incorporating an “editor’s note” into a codified Code where necessary to clarify or explain an ambiguity or a discrepancy between two or more amending standalone documents.

Metadata Records. The database content being created by NCSC will contain in one dataset slightly more than 5,000 metadata records – one record for each of the estimated 5,000 standalone documents, and one for each of the codified Codes. The metadata, as previously noted, is the key for searching the database and for retrieving the text and image documents.

Metadata records use relational database structures and formats to build each record. Each record will contain the metadata for its associated document, such as its citation(s), its type (e.g., law), the institution that issued it (e.g., the President), the date it was issued, the date it became effective, its subject-matter classification(s), and its title. In addition, each record will contain pointers (or hypertext links) to its text document and, if available, to its image document. Editorial personnel are responsible for entering and verifying the accuracy of all data comprising each metadata record.

The final defined list of the data, and their functionality, that will be included in each metadata record is in the process of being completed. A model data entry screen has

been developed using MS Access as the underlying software application. This model will be used to create an initial set of metadata records for testing and evaluation purposes. Further refinements in the list of data and their functionality and in the data entry screen are contemplated based on experience in using the model, and on the development of more robust software to support the maintenance and updating of the database.

Database Search and Retrieval

Introduction. The end-user interface for search and retrieval will be web-based, with similar functionality for access to the database over the Internet and on CD-ROM. Standard features of a web-based application will be available, such as “go back” (to a previous non-linear movement).

A different approach will be implemented for searching and retrieving a codified Code versus for searching and retrieving standalone documents. Upon selecting the database, the first screen will briefly describe the overall contents of the database, and then require the end user to select either to display a codified Code or to perform a query to retrieve and display standalone documents. The final design for this first screen is not completed.

Codified Codes. If the end user elects to display a codified Code, the next step is to require the end user to identify the desired Code. To accomplish this step, a list of all available completed codified Codes will appear. This list will indicate that each Code is the current effective version, that each Code includes references for each amended Article to enable the user to determine the prior language of that Article as of any date, and that each Code contains a list of each standalone document that enacted the Code and that amended it. The final design for this screen is not yet completed.

Once the end user selects the desired codified Code from the list of all available codified Codes, the text document for that Code will be retrieved and displayed. From this point, the end user will require all necessary navigational tools (e.g., line-by-line and screen-by-screen scrolling, character string search jumps, hypertext jumps, etc.), and all tools necessary to permit downloading and printing. A model codified Code (the Land Code) has been developed and approved.

The first screen for each codified Code will identify the Code, and provide a Table of Contents. The Table of Contents will (a) list the titles of the Parts (the major subdivisions for a Code) and the Article numbers that are included in each Part, and (b) include a reference to the list of the standalone documents that enacted and that amended that Code. The function of the Table of Contents is to provide a quick and easy way (using hypertext links) for the end user to navigate to a specific place in a codified Code text document, as most Codes are lengthy documents. The end user could alternatively scroll through the entire document, beginning with Part I (which follows the Table of Contents) and ending with the list of the applicable standalone documents.

The list of applicable standalone documents will provide the end user with a means of retrieving each listed document’s text document or image document, so that if necessary the user can verify the accuracy of the editorial effort in the codification

process. The process for transitioning from the list of standalone documents to retrieving their text or image documents is described more fully below.

Standalone Documents. If the end user elects to perform a query to retrieve standalone documents (rather than electing to display a codified Code), the next screen will be an enter query screen. The data comprising the metadata records will be used for resolving the query. A model query entry screen is in the process of being developed. This query screen, in concept, will mirror the metadata record data entry screen.

The results of a query will be a list of documents that meet the search criteria. The purpose of the list is to enable the end user to determine, to the extent possible, whether each listed document is potentially relevant. A model screen for displaying the list of documents that satisfy the query has not yet been developed. Decisions, however, are being made as to the information to include for each document (e.g., title, type, institution issuing, date of issuance, official citation), the format for this information, and the order for display (e.g., hierarchical by type and institution, and within the hierarchy chronologically by date of issuance).

From the list of documents, the end user will be able to select any listed document for display. Once a document has been selected the next screen will display on one screen that document's complete metadata in an end user friendly format. The purpose of this screen is to enable the end user to determine whether the selected document is worthy of further analysis, and if so, to have that document retrieved and displayed. A model screen for displaying the metadata data for each standalone document has not yet been developed.

Although the model screen has not been developed, at the bottom of this screen will be four possible choices for the user to select, namely: (1) see the text document; (2) see the image document (if available); (3) see the list of documents that are related (if any); and (4) return to the list of documents that satisfy the query. If a user selects the text document or the image document (if available), the first screen of the document will next appear. From this point, the user will require all necessary navigational tools (e.g., for text documents, line-by-line and screen-by-screen scrolling, character string search jumps, hypertext jumps, etc.), and all tools necessary to permit downloading and printing.

If a user elects to see the related documents, the next screen will be a list of those documents that the editorial staff has indicated as "related"; this list will be similar in functionality to the list of documents that satisfy a query. And finally, if the user elects to return to the list of documents, the last screen viewed for the list of documents that satisfy the query will be redisplayed.

Attachment A sets forth the search and retrieval functionality described above in schematic form.

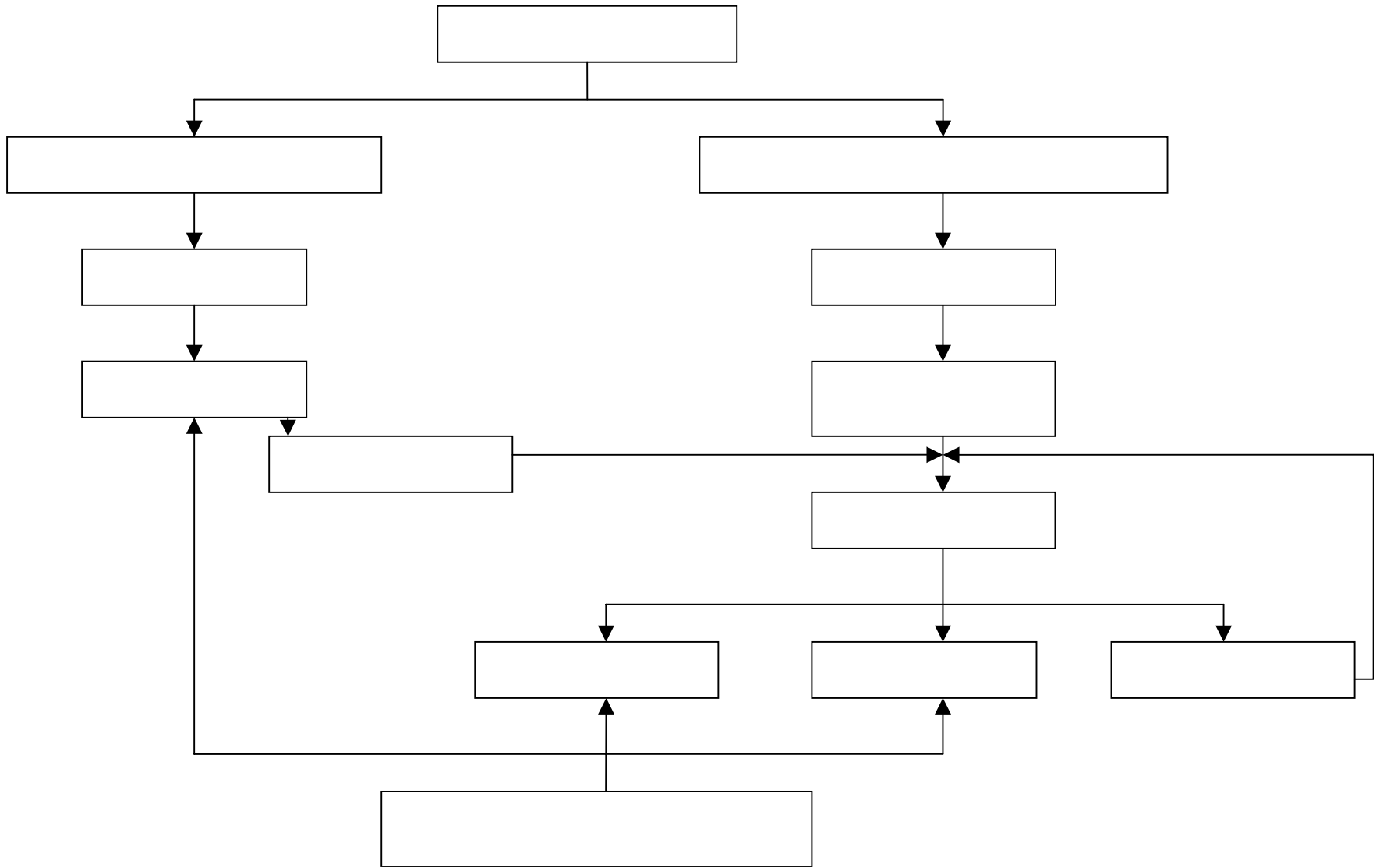
Metadata Record Data. The key to understanding the search and retrieval functionality for both the codified Codes and the standalone documents is the data that will be included in the metadata records and their functionality. Attachment B

provides the current specifications for each standalone document metadata record and for each codified Code metadata record.

All metadata record searchable content will reside in one dataset table. This will enable the end user to quickly search the database for a document based on the search parameters contained in the table. The actual document text will reside in a folder containing all document text files. Similarly, the actual image documents will reside in a separate folder. Dividing the content in this fashion will result in increased access speed and more effective use of system resources. The data sets within the metadata records table will be “normalized”, to both eliminate redundancy within the metadata records content and to reduce the opportunity for data entry error by MoJ personnel.

Search & Retrieval Functionality Schematic

Appendix A



Appendix B

Standalone Document Metadata Record Specifications

Field	Mandatory (M) or Optional (O)	Comments
ID	M	Unique ID; entered by computer; not searchable
Date Received	M	Date stamped “as received” on document, or date recorded “as received” by editor; need for internal reference; not searchable
Official Citation	M	Contained in source document; copy and paste from text document; tools can also be developed to reduce data entry; searchable
<i>Toplusu</i> Citation	M (see comments)	Only for documents published in <i>Toplusu</i> ; need to develop citation convention; once convention developed, can develop tools to reduce data entry; searchable
<i>Bullitini</i> Citation	M (see comments)	Only for documents published in the <i>Bullitini</i> ; need to develop citation convention; once convention developed, can develop tools to reduce data entry; searchable
Other Citation	O	Need to provide a field to enable an editor to enter other places where a document may be published, such as in an authorized newspaper; need to allow for multiple entries; searchable
Issue Date	M	Contained in source document; either follow structured format for entering date or develop pop-up calendar with point and select functionality; searchable
Registration Date	M (see comments)	Applicable only to Ministerial Regulations registered with MoJ; either follow structured format for entering date or develop pop-up calendar with point and select functionality; searchable
Effective Date	M	For documents published in <i>Toplusu</i> , effective date is set forth in the document and is either the date published in the

		newspaper (vast majority of instances) or a specified date; if a specified date, then follow structured format for entering date or develop pop-up calendar with point and select functionality; searchable [Note: it may initially be difficult to ascertain the publication date in the newspaper, and may have to consider an entry that simply indicates “date of publication”] For documents published in the <i>Bullitini</i> , either follow structured format or develop pop-up calendar with point and select functionality; searchable
Status	M	One of two choices – effective or not effective; check box selection; subject to being changed; searchable
Type (e.g., Law, Order, Instruction, etc.)	M	There are a finite number of types; pull-down menu selection; searchable
Institution (e.g., Parliament, etc.)	M	There are a finite number of institutions; pull-down menu selection; searchable
Signatory	M	Name of government official that signed the document; copy and paste from text document (could also consider a pull-down menu selection capability); searchable
Classification	M	AZ has adopted a 3 level subject-matter classification scheme (over 1000 possible choices), with the highest level having 45 choices; pull-down menu selection; need to allow for multiple entries; searchable
Title	M	Contained in the document; copy and paste from text document; searchable (by character string search)
Text Version	M	Pointer to the text document file; database lookup with point and select functionality; not searchable; document retrievable from record displayed to end user
Image Version	M	Pointer to the image document file; database lookup with point and select functionality; not searchable; document retrievable from record displayed to end user

Related Documents	O	Pointer to metadata record for each document determined by an editor as “related”; database lookup with point and select functionality; metadata record for each designated related document automatically updated to include a pointer to target document; need to allow for multiple entries; not searchable; related documents metadata records retrievable from record displayed to end user
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Codified Code Metadata Record Specifications

Field	Mandatory (M) or Optional (O)	Comments
ID	M	Unique ID; entered by computer
Name	M	17 Code names; pull-down menu selection; searchable
Effective Date	M	Date most recent amending law became effective; not searchable
Citation	O	Unofficial citation(s) to published versions of the codified Code; not searchable
Description	M	Brief description of the nature and scope of the Code (e.g., date initially enacted; number of amending laws; number of articles, etc.); not searchable
Text Version	M	Pointer to the current text document file; database lookup with point and select functionality; not searchable; document directly retrievable

ATTACHMENT V

PROPOSED PRIORITY FOR CODIFYING THE CODES OF AZERBAIJAN

Priority	Enacted (mm/yy)	Articles (#)	Source Docs (#)	Articles Amended (Est. #)
Land ¹	Jun 1999	113	9	28
Family	Dec 1999	195	2	4
Civil Procedure ²	Dec 1999	477	7	14
Civil	Dec 1999	1325	6	142
Timber	Dec 1997	80	2	2
Trade Shipping	Jun 2001	335	2	2
Air ³	Feb 1994	155	3	3
Water	Dec 1997	105	5	7
Election ⁴	May 2003	246	3	3
Execution of Penalties ⁵	Jul 2000	182	8	11
Labor ⁶	Feb 1999	317	20	33
Customs	Jun 1997	450	14	48
Housing ⁷	Jul 1982	149	18	99
Tax	Jul 2000	221	10	183
Criminal Procedure ⁸	Jul 2000	521	7	75
Criminal	Dec 1999	353	18	190
Misdemeanor	Jul 2000	458	43	390

¹ Prototype

² Contains 1 Attachment

³ Original Code not published in *Toplusu*; need to obtain an official copy

⁴ Contains 5 Attachments

⁵ Proposed Code for MoJ training

⁶ Contains 2 Attachments

⁷ Original Code not published in *Toplusu*; need to obtain an official copy

⁸ Contains 1 Attachment

PRINCIPAL WORKFLOW ACTIVITIES REQUIRED TO IMPLEMENT AZERBAIJAN LEGAL DATABASE (Draft)

A. Database Maintenance and Updating

- For a framework document received in hard-copy format
 - Record date received
 - Create image document file
 - Scan hard-copy (JPEG @ 150 dpi)
 - Verify and correct
 - Assign file name (use naming convention)
 - Store in Production Database
 - Approve (Supervisor)
 - Create text document file
 - Enter data (MS Word)
 - Assign file name (use naming convention)
 - Perform error detection and correction (min. 99.9%)
 - Store in Production Database
 - Approve (Supervisor)
- For a framework document received in electronic format (image or text, or both)
 - Record receipt date
 - Create image document file
 - Scan, if necessary
 - Verify and correct
 - Assign file name (use naming convention)
 - Store in Production Database
 - Approve (Supervisor)
 - Create text document file
 - Data entry (MS Word), if necessary
 - Assign file name (use naming convention)
 - Perform error detection and correction (min. 99.9%)
 - Store in Production Database
 - Approve (Supervisor)
- For each new document file in Production Database approved by Supervisor
 - Create “low value-added” metadata
 - Enter data (using form)
 - Verify and correct
 - Store in Production Database
 - Approve (Supervisor)
 - Create “high value-added” metadata (classification categories& related documents)
 - Retrieve metadata record containing “Low Value-added” metadata from Production Database
 - Enter classification categories
 - Enter pointers to metadata records for related documents
 - Verify and correct
 - Store in Production Database
 - Approve (Supervisor)

- For each framework document that has a Supervisor approved image document file, text document file, and complete metadata record in the Production Database, and that is later published in *Toplusu* or the *Bullitini*
 - Create new image document file
 - Scan hard-copy (JPEG @ 150 dpi)
 - Verify and correct
 - Assign file name (use naming convention)
 - Store as a new image document in Production Database
 - Approve (Supervisor)
 - Create new text document file
 - Copy existing text document and save as a new text document
 - Assign file name (use naming convention)
 - Perform error detection and correction (min. 99.9% accuracy)
 - Store as a new text document in Production Database
 - Approve (Supervisor)
 - Update metadata record
 - Retrieve existing metadata record from Production Database
 - Add *Toplusu* or *Bullitini* citation
 - Delete pointers to original image document file and original text document file, and enter pointers to new image and text document files
 - Verify and correct
 - Restore in Production Database
 - Approve (Supervisor)
- For updating a codified Code with a new amending framework document
 - Retrieve current version of codified Code from Production Database
 - Incorporate additions, deletions, or other changes in Articles (using MS Word)
 - Add end note for each amended Article
 - Incorporate an editor's note, if necessary
 - Add amending framework document summary information to list of documents
 - Restore in Production Database
 - Approve (Supervisor)

B. Database Distribution over the Internet¹

- For each complete metadata record and its associated image document and text document in the Production Database approved by Supervisor
 - Designate them as “live” in Central Database (Supervisor)
 - Extract “live” portion of Central Database on a daily basis and transfer to Internet server (Supervisor)²
 - Verify operation of Internet site on a daily basis (Supervisor)

C. Database Distribution on CD-ROM³

- For each complete metadata record and its associated image document and text document in the Production Database approved by Supervisor and designated as “live” in the Central Database (see B, above)

¹ Assumes Internet distribution is performed by an out-sourced vendor

² Whether to extract “live” image documents for distribution over the Internet has not yet been determined; image documents initially may only be distributed on CD-ROM (see items C and D, below) due to bandwidth and connectivity issues

³ Assumes manufacture and distribution of CD-ROMs is performed by an out-sourced vendor

- Extract “live” portion of Central Database on a periodic basis⁴ and transfer to server used to create master CD-ROM (Supervisor)
- Provide master CD-ROM to out-sourced vendor (Supervisor)
- Create and update distribution list, and provide list to out-sourced vendor (Supervisor)
- Verify operation of CD-ROM (Supervisor)

D. Monthly Distribution of *Toplusu* and *Bullitini* Content on CD-ROM⁵

- Create a new text document file for the Table of Contents contained in the January issue of each publication⁶
 - Enter data (MS Word)
 - Add a hypertext link from each framework document listed in the Table of Contents to its Supervisor approved image document file in the Production Database
 - Assign a file name (using naming convention)
 - Perform error detection and correction
 - Store in Production Database
 - Approve (Supervisor)
- Update Table of Contents text document file for each subsequent issue in the calendar year (one text document file per year for *Toplusu*, and one for the *Bullitini*)
 - Retrieve prior month’s updated Table of Contents text document file
 - Enter data (MS Word)
 - Add a hypertext link from each new framework document listed in the Table of Contents to its Supervisor approved image document file in the Production Database
 - Perform error detection and correction
 - Restore in Production Database
 - Approve (Supervisor)
- Publish cumulative monthly edition of *Toplusu* and the *Bullitini* (12 per calendar year)⁷
 - Extract from the Production Database each respective publication’s current cumulative Supervisor approved Table of Contents text document file and their hypertext linked image documents, and transfer the data to the server used to create a master CD-ROM (Supervisor)
 - Provide master CD-ROM to out-sourced vendor (Supervisor)
 - Create and update distribution list, and provide list to out-sourced vendor
 - Verify operation of CD-ROM (Supervisor)

D. Miscellaneous

- Backup Production Database and Central Database daily (Supervisor)

⁴ Frequency of distribution has not yet been determined; suggest no less frequently than quarterly

⁵ Assumes manufacture and distribution of CD-ROMs is performed by an out-sourced vendor

⁶ No associated metadata record for this text document; only used as a “finding” tool for this CD-ROM application

⁷ Publication should be within a minimum number of working days after the end of each month; suggest no more than 5 working days