



D. Lawton Associates

business solutions

Your DLA Development Project

**Successfully Implementing Your
Custom Database Application**



- ◆ Reliable
- ◆ Efficient
- ◆ Fully Integrated
- ◆ Customized to Fit You

Project Overview

As you know, the implementation process you follow is as important as the quality of the software itself. It is essential that your business processes match the work flow supported by your new software, that your existing data is effectively converted or entered, and that your staff are sufficiently familiar with the system to make effective use of it. D. Lawton Associates has many years of experience successfully implementing custom systems in organizations like yours.

When you work with us, you can expect:

- ◆ The implementation will be a team effort. We're experts in the implementation process. You know how your organization operates, and the things that will help your organization run more smoothly. Working together, we can help you realize the benefits of a successful automation project.
- ◆ As with any team effort, communication is key. All of the tasks will be well documented, and everyone will know in advance what is expected of them. Project status reports will help you monitor the progress of the project.

We divide the implementation into four phases:

- ◆ Phase I is the planning & analysis phase. We review your business practices and identify the modules and features that are required to meet your objectives.
- ◆ During Phase II we develop the software you require, drawing upon our extensive prior experience. This includes modules, interfaces and data conversion scripts.
- ◆ We work with you to deploy your new application during Phase III.
- ◆ Once you are up and running, we provide ongoing service and support that you require.

Phase I and Phase III are very similar from one project to another, but Phases II and IV vary significantly depending on the unique requirements of each project. Each of these facets of our implementation process is described in greater detail on the following pages.

Project Team

There are usually three organizations participating in each project:

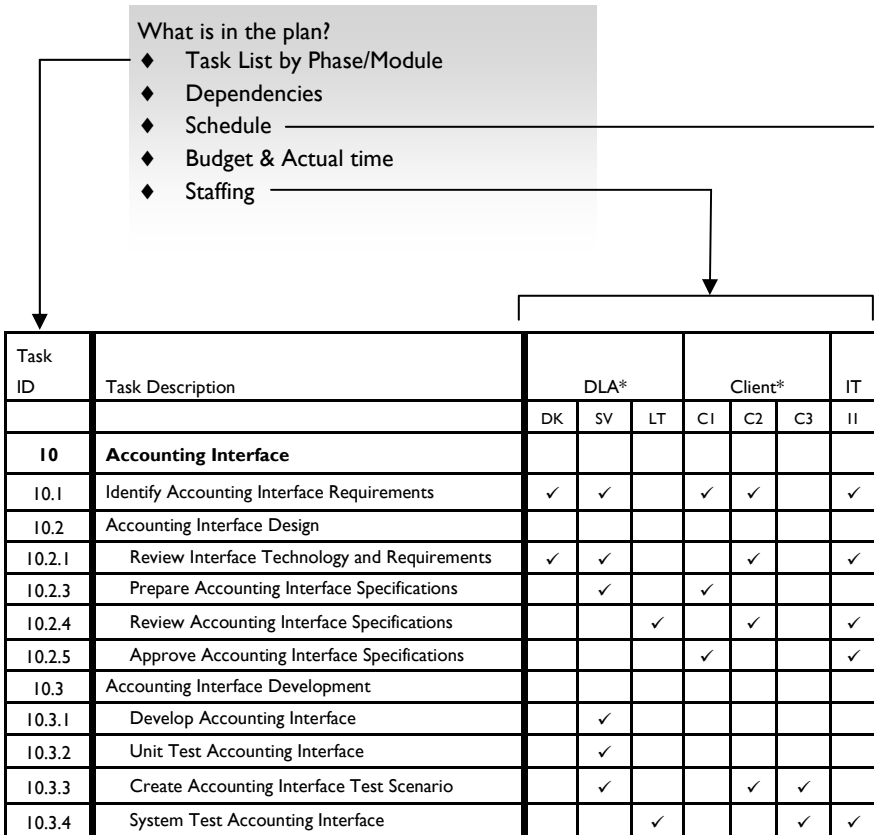
- ◆ First of all, there is your staff. Your team is responsible for each of the functions you are automating, so they are the best source of information about your needs. If you have a large team, you may want to designate representatives of each perspective to keep the project manageable.
- ◆ D. Lawton Associates brings several skills to the table. In addition to our in-depth technical skills, we understand how to implement complex systems and can ensure the success of your project.
- ◆ Lastly, your IT staff are likely to get involved. The new system will be running on their computers and information will be carried across their networks. They will want to make sure they understand what the system needs to operate reliably, and they will want to be comfortable that the system doesn't compromise the stability of their other applications.

At the start of the project, one of the key steps is to clarify how several key roles will be filled. We will organize the project team to meet your requirements, but it often looks like:

- ◆ *Project Management.* DLA usually takes the lead in project management, since we're familiar with the process. We prepare the action lists, issues lists and status reports, for your review. We're happy to share project management with your staff if you'd like to take on some of this yourselves.
- ◆ *Design/Requirements.* Your staff takes the lead in defining their requirements, and it is always best if you can document these requirements yourselves. We provide the structure for this effort, ensuring that design tasks are effective.
- ◆ *Development.* We take the lead in development, including both new modules and conversion scripts. Your staff can get directly involved in the development of reports and merge documents, if you wish.
- ◆ *Quality Assurance.* Quality assurance is a key responsibility, and is a core principle of our implementation process. Our job is to make the software conform to the written specifications. It is your responsibility, working with us, to ensure that your requirements and work flow are completely and accurately documented. Our standard document formats help to ensure that key considerations (e.g. security) aren't overlooked.
- ◆ *Server & Desktop Deployment.* This role often rests with your IT staff, though your staff and DLA staff often participate. The goal is a reliable and supportable infrastructure on which your new system will operate.
- ◆ *Documentation.* We provide technical documentation including source code and database definition. The requirements documents, the result of a team effort, are also key. Your staff is usually responsible for documenting user procedures and work flow.
- ◆ *Training/Support.* Usually, you will assume primary responsibility for user training and first-line support. Your designated representative contacts DLA when needed, for enhancements, bug fixes and general support requests.

Project Plan

The project plan is one of the keys to a successful project. We work with you to develop the initial plan, and we manage the project according to this plan, making any adjustments as needed. A solid plan ensures that your project will be successful, since it ensures that everyone on the team knows what they are expected to do and how their tasks impact other tasks.



Scope changes are any tasks which are added to the project or removed from the project after the original budget and project plan have been prepared and approved.

Project Days	DLA Current Month	DLA To Date	Comments
Original Baseline	232.0	224.0	
+Scope Change(s)	2.0	9.0	Added new report.
+ Mix Variance	-3.0	-5.0	Moved additional QA to TTO.
+ Other Variances	0	3.0	
= Current Estimate at Completion	231.0	231.0	
- Days Spent	41.0	124.0	
= Estimated Days Remaining		107.0	
% Completed	18%	54%	

Mix variances are tasks that are shifted between DLA and other members of the project team after the original budget and project plan have been prepared and approved.

What documents do we use to manage our projects, in addition to the project plan?

- ◆ *Status Reports.* We use a monthly status report to assess the progress of the project compared to the plan. Any variances are identified, along with key changes to the project plan.
- ◆ *Action List.* Our action list identifies specific tasks which need to be completed in the next few weeks, with the responsible parties and due dates. These tasks are identified during regular project review meetings.
- ◆ *Issues List.* When issues are identified, they are entered into an issues list. We identify the steps required to resolve the issue, and manage progress accordingly. When the issue is resolved, the resolution is recorded here too.

Start Date	Target Date	Finish Date	Assumptions / Comments
3/4	3/11	3/10	Need invoice & A/R feed
3/11	3/14		Interface via CSV file
3/15	3/21		
3/22	3/28		
4/1	4/2		Joe will discuss w/acctg. Mgr.
4/3	4/16		
4/17	4/23		
4/7	4/16		Be sure to include partial payment
4/24	4/30		

Phase I: Planning & Analysis

It is crucial, at the start of your project, to get a clear picture of both your business objectives and the path you'll follow to reach them. This can then be communicated to everyone on the team so that they are all working towards the same target.

During Phase I we will:

- ◆ Review and discuss your work flow and business requirements. It is critical that all your needs are clearly identified.
- ◆ Identify the project team, including the assignment of key roles.
- ◆ Based on your requirements, identify and document the system's functionality including modules, interfaces and data conversion.
- ◆ Identify all deployment requirements, including training and data conversion.
- ◆ Start defining ongoing support requirements, to be reviewed and adjusted prior to Phase III.

Our Phase I process is straightforward:

- ◆ We start with a kickoff meeting, to introduce the project team and map out the tasks for the completion of Phase I.
- ◆ This is followed by meetings focusing on the requirements and work flow for each module or feature of your new system. We start with the 'entities' (customers, patients, vendors, products, etc.) and then move on to 'transactions' (orders, invoices, payments, examinations, etc.) involving the entities. Each of these is examined from the perspective of each type of user you anticipate. During this process, we identify any issues requiring additional discussion.
- ◆ Each issue is then addressed by the appropriate team, and a resolution will be identified. Issues are generally resolved by either a change in your procedures or a functional requirement for your system.
- ◆ As the issues are being addressed, the work plan for the remainder of the project is developed.

Upon completion of Phase I, you will have received the following deliverables:

- ◆ *Work Plan.* A key deliverable of Phase I is the work plan for the remainder of the project. This work plan identifies all the tasks on the project, with estimated labor requirements and projected schedule, for all participants in the project.
- ◆ *Feature Definitions.* For each Phase II development task, a functional description is completed during Phase I. This document clearly describes the requirements and functionality to be designed and developed during Phase II, and serves as the baseline document for Phase II design tasks.
- ◆ *Team/Roles Definition.* This document identifies all of the members of the implementation team and their roles.

Phase II: Your Unique Requirements

During Phase II, we design and develop the application you need, as identified and prioritized during Phase I. The process we follow during Phase II is described on the following pages.

Forms

Forms are the primary mechanism for users to view and/or enter data in your new application. The content and layout of each form is optimized to support your work flow. For example, if you typically enter data from an existing document, you'd like the form layout to match the source document layout as closely as possible.

Reports

Printed reports are the primary mechanism for the distribution of information from your system. We typically offer a variety of selection criteria and/or sort options for each report, and can make your reports available in industry-standard PDF format if you'd like to be able to email them.

Automated Processes

Tremendous productivity can be achieved by automating some of your business processes. Batches of invoices can be generated, interest can be applied to past-due accounts, or reminders can be sent to patients who are due for an appointment.

System Interfaces

Phase II includes the development of interfaces to other systems, including central accounting systems and other external systems. We can develop feeds in either direction, ensuring the timely transfer of critical business information and a reduction in duplicate effort.

Data Conversion

While it would be ideal if each site had a single current system, few systems are as fully integrated as your new system. Most of our clients have data in several current systems. We will identify during Phase I the custom or off-the-shelf applications, the Excel spreadsheets and Access databases which contain the information you'd like to see in your new system. Automated scripts are developed during Phase II, so that the conversion can be performed efficiently during Phase III.

The Development Cycle

Our specialty is the design of custom software to meet unique requirements, so the development cycle described here is the core of our process. This is a summary of our approach, and we'll be happy to give you additional information upon request. We're proud of what we do, and we're happy to share.

Design

The objective of the Design process is to produce specification documents for any modules which are required. These documents are essential for the following:

- ◆ Your staff review and approve the specifications, indicating that their requirements are accurately and fully described.
- ◆ Our developers refer to these documents as they are developing modules. These documents are the 'recipe' for the required functionality.
- ◆ The quality assurance team (both DLA and your staff) refers back to these documents as the functionality of the application is tested prior to release.
- ◆ The specifications are a written record of decisions which were made by the team, and are an integral part of the technical documentation. It is frequently useful to refer back to these documents.

Functional design decisions are made during design meetings which usually include both your staff and DLA staff. The documents themselves may be written by either you or DLA depending on how the roles are defined. Each document will include:

- ◆ For programs:
 - data design – what data is required to support the business function?
 - GUI design – how will this data be represented on forms?
 - functional design – how will the module operate?
- ◆ For conversion scripts:
 - identify data sources.
 - define source to target map.
 - define any translation or validation requirements.


Management/Review

There are two management/review cycles which we follow during the course of the project:

- ◆ The implementation team (your staff, DLA and IT) meets or talks regularly to review the status of the work plan, identify requirements issues and identify critical items in the near future.
- ◆ The DLA project team (manager, developers and analysts) speak regularly to discuss resource assignments and technical obstacles.

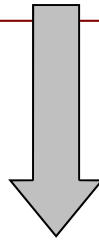
It is reasonable, of course, for the your staff to talk regularly about the status of the tasks on their plate, and to work out organizational issues without direct involvement of DLA. Any analysis done by your staff prior to design or status meetings will reduce the overall cost of the project.

Development




After a design has been approved, our development team gets to work. Our project manager knows each of the tasks awaiting development and the work loads of our developers, so they can assign each task to the appropriate developer. The developers review the specifications and develop necessary modules. Once the work is complete, the developer performs unit testing and then turns the completed software over to the project manager.

The "tools of our trade" are among the best in the industry. Your data will usually reside in an industry-standard SQL database. We use Delphi and Java to develop most client software, and use JSP for most Web-enabled applications. Our applications are compatible with most popular reporting packages so you can easily develop many of your own reports. During 2003, we standardized on the use of virtual machines for our development environments, making it even easier to give you a copy of a fully functional development environment if you'd like to receive one.



Quality Assurance

Quality assurance is vital to the success of the project, since this process determines when your application is ready for deployment. It is understood and expected that specifications will occasionally be incomplete or ambiguous, and their content can sometimes be misunderstood. Oversights occur, and the QA process is designed to catch as many as possible before deployment. Here are some things to think about as you join us in making sure that your application works as you expect:

- ◆ Define the testing and acceptance process up front, so everyone knows their roles.
 - ◆ Be sure to define specific test cases, and identify the data which is required to test these cases.
 - ◆ Quality assurance is most effective if people who weren't the original designers and developers also participate. The extra set of eyes is helpful.
 - ◆ Process some real business transactions using your new application, not just 'made up' transactions. It is amazing how many exceptional situations are identified in this manner.
 - ◆ It is your responsibility to determine that the software is working correctly, and to identify any areas where it doesn't meet the requirements.
 - ◆ Your requirements are always more important than the specifications. If something was overlooked, the specifications and the application can be changed.
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Phase III: Deployment

The deployment phase is an exciting time. You've defined your requirements and participated in design meetings. You've tested the software and verified that it does exactly what you expect. Now you're going to use it! It is tempting to skip a few steps, but you will find that all of the following are needed. In most situations, your staff will use your current systems on a Friday and when they return to work on Monday the new systems will be up and running.

- ◆ Install and configure the database server and any new desktop computers. Roll out the new software to the desktops. We can include with your application a utility which simplifies management of which version each user sees, so that most users can work with the current production version and a few users can be testing a future version.
- ◆ The data conversion scripts are run, transferring your existing data to the new production database. This is usually performed during the evening or over a weekend, to ensure that the process has time to complete and to minimize impact on your operation.
- ◆ Develop and implement a plan to decommission any older systems which your are is replacing. Most of our clients don't run in parallel, due to the cost and time required for this, but the older systems are left on 'standby' for some period of time until everyone is comfortable that the new application is working correctly.
- ◆ Define a support escalation procedure. When a user has a question or thinks the system isn't working correctly, who do they call? Who is responsible for determining whether the problem was the result of a system error, some data issue, or user error.
- ◆ Define a suggestion process. How will users request new features, and who will get back to them to thank them for their feedback. How will you manage and prioritize the resulting wish list.
- ◆ Develop and implement a user communication plan, preparing them for the roll-out. Be sure to explain the support and suggestion procedures.
- ◆ Demonstrate the new application to your users. We can conduct the training with you, or we can help prepare your training team.

The above sequence of steps is necessary, to some extent, for every deployment. If your application is being deployed to your group in stages, these steps are followed for every rollout. Obviously, your first roll-out will be the most involved. For maintenance releases and periodic functional updates, you will find that attention to detail in the above areas will ensure that everything goes smoothly.

Phase IV: Ongoing Support

You should expect to use your new software for a minimum of 5-7 years, and this life can be significantly extended with regular ongoing maintenance. Our support services after deployment include:

- ◆ Ongoing software maintenance and bug fixes. During the course of a year, we frequently get minor requests which are easy to respond to. Sometimes we're asked to rearrange the fields on a form, or make one of the fields a bit longer. Sometimes, we're asked to add a 'shortcut' to get from one part of your application to another more quickly. Whatever your need, we'll take care of it promptly.
- ◆ We're happy to implement any enhancements you require. Most of our clients maintain a 'wish list', with suggestions and ideas from current users. Each year, they allocate a portion of their budget to these enhancements, and select the enhancements with the highest priority for development.
- ◆ Sometimes, you need support which isn't directly related to the new application itself. Maybe you printed a report, and the numbers don't seem right. If you need help digging into the data to explain why a number is what it is, we can help you.

Because of our focus on custom software, we realize that our clients rely on us for each of the above support services. We make ourselves available to assist you, whenever you need us, in the following ways:

- ◆ **Phone.** If you have a question for us, just give us a call. We do suggest that you designate one person to be your regular interface into our support team. We're easy to reach.
- ◆ **Remote.** We use software such as pcAnywhere or Microsoft Terminal Services to connect our office to yours. With your oversight, we can see what you're seeing and discuss options. If we make minor changes, we can (with your approval) deploy them directly from our offices.
- ◆ **Onsite.** If you need us there, we'll be there. Our commitment to customer satisfaction means we're on your premises whenever you want us. Some complex issues are best discussed in person, and sometimes you just need us there for your own peace of mind.

**There are many reasons you should choose
D. Lawton Associates.**

- ◆ We have a proven track record, successfully implementing custom-tailored systems since 1986.
- ◆ We strive to establish long-term relationships with our clients, many of whom are listed on our Web site. As we learn about your needs, we can refer you to past clients for whom we've completed similar projects. All of our accounts are great references.
- ◆ Our responsiveness to your needs and requests is unequalled. We are dedicated to your success, and the success of your systems project.
- ◆ Our management and technical staff are the best in the industry, with an average of 23 years of relevant experience.



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