HarrisData *quick*Start

A methodology for reducing implementation project risk

If you're planning to implement new enterprise application software, you likely face the prospects of an implementation project with both excitement and caution.

You are excited at the potential of streamlining your organization: reducing paperwork, increasing efficiency, improving management reporting, reducing inventory, and improving collaboration with customers and vendors. These benefits are expected as soon as the new system "goes live," and will more than offset the expected investment in the new system. You know that a new enterprise application implementation can deliver significant return on investment, and you look forward to delivering the good news to your owners and senior management.

You are also cautious. You've heard the horror stories of implementations getting out of control. You've heard about projects where overly optimistic estimates combined with poor project management have caused implementation costs to spiral upward until the costs outweigh any potential benefits. You may even know an organization that invested enormous amounts of time, effort, and money, and stopped the project before it was completed

How can you make certain *your* implementation project succeeds? Take control of the project! Like any other project, enterprise application software implementations require management of people, time, and money. Like any other project, changes to the original plans will likely cost time and money. Like any other project, missed deadlines will have a cascading effect on the project timeline. If you had a little technical knowledge, you would treat your enterprise software implementation like any other project you have ever managed. With HarrisData experts available to provide advice, monitor progress, and help answer any questions you have, you'll be managing your implementation project like a seasoned pro.

This White Paper is designed to provide a management overview of the critical steps in implementing enterprise application software, and to provide recommendations and advice on how to reduce cost, time, and risk in each step of the process. Use this information to better estimate the work involved in your implementation project, and to better manage your project once it has begun.

The HarrisData quickStart implementation process is based on a proven methodology to deliver results quickly, predictably, and economically. The quickStart approach relies on knowledge transfer and preparedness as the keys to success, and provides you with management metrics to help you manage the execution of your implementation project.

Implementation of enterprise application software can appear to be a daunting task. The quickStart approach organizes implementation efforts into five major areas:

Planning and Organization
The majority of activities involved in the planning and organization phase are centered on knowledge transfer. Once the situation has been assessed and the team has a good understanding of the issues, a detailed project plan is prepared. The plan serves to both guide the project team's activities and to provide management with metrics to monitor the project.

Project Management
The basics of project management are stressed throughout the quickStart implementation process. Simply put, the basics require you to

- ? Work your plan
- ? Communicate constantly
- ? Use change control procedures
- ? Watch the critical path

HarrisData project managers can help you monitor and execute on your plan.

Technical Implementation
The implementation tasks that are generally performed by Information Technology (IT) staff or technology consultants fall into the Technical Implementation phase of your overall project. Typically, technical implementation includes data conversion, system modifications, system interfaces, and other IT tasks. HarrisData application experts can help you understand whether proposed efforts are necessary and help you identify resources that can cost-effectively accomplish each task.

Business Implementation
The most important part of an enterprise software implementation is getting the business people on board. This implementation phase requires business process reviews, extensive training, and careful system validation in order to achieve the buy-in necessary for a successful implementation. HarrisData experts typically take an active role in this phase to maximize your probability of success.

Continuous Improvement
The process doesn't end just because the new software is "live." Continuous improvement with minimum investment will help make your new enterprise software even more valuable to your organization. The quickStart methodology focuses on getting "live" quickly, but establishes the foundation for continuous improvement later.

Planning and organization is critical to a successful implementation project. A good plan will help you manage the project more efficiently, saving time and money. A good plan will also anticipate risks, and prepare you to deal with the unexpected. By investing your time in the planning and organization of your implementation, you can insure that your investment of time, money, and resources generates the desired goal.

This section of the quickStart focuses on the major steps involved in forming your plan, from the preparation of a high level plan with HarrisData, to the creation of a detailed plan with assigned responsibilities. The process begins with knowledge transfer – HarrisData learns about your organization and you learn about HarrisData software. The knowledge transfer provides a common mission and vocabulary to streamline implementation efforts. At the conclusion of the knowledge transfer, you'll already have a high-level implementation plan from HarrisData in the form of an Initial Plan document. Then you'll move to the creation of a detailed implementation plan, pulling together all of the various activities necessary for the successful implementation of modern application software into one manageable plan. This document helps you identify activities you should plan for, and gives advice on how to incorporate them into your detailed plan.

Once your detailed plan is complete, you're ready to begin implementing the software. That's when your project management skills will be most valuable.

Knowledge Transfer

Before developing the implementation plan, significant investment in knowledge transfer should take place. First, assigned HarrisData implementation experts must learn as much as possible about your business and your vision for the project. Then, your project team will need to learn enough about the HarrisData software to begin to develop a detailed plan.

Transferring knowledge to HarrisData

HarrisData implementation experts will learn about your organization in a variety of ways. Two critical events keep the process focused and timely. These processes are the Turnover Briefing and the Site Survey. Both events focus on gathering and validating knowledge about your organization and your vision for the project.

Once these events are complete, HarrisData will document the findings in an Initial Plan document for your review and approval before moving forward.

Turnover Briefing
The Turnover Briefing is an internal HarrisData meeting to transfer information, documents, and knowledge acquired during the evaluation process to the HarrisData Project Team. This is a formal process designed to make certain that none of the information gathered about your organization during the evaluation phase is lost.

Site Survey
The Site Survey event is typically performed by one or more members of the HarrisData Project Team. The surveyor(s) will typically visit your site(s) in order to gather information about the project first hand. Surveyors will conduct management interviews, review key information flows (even chase paper trails), and physically inspect key business processes to better understand your business and vision.

During the process, the surveyors will attempt to:

- ? Identify key objectives
- ? Identify critical resources

- ? Identify significant constraints
- ? Identify important milestones
- ? Identify unique business processes
- ? Identify major tasks

Initial Plan Document

The Initial Plan document is prepared by the HarrisData Project Team to outline the key findings of the knowledge transfer process. The document may include:

- ? High level Project Plan
- ? High level gap analysis
- ? Project Gantt chart
- ? Recommended Project Team Members

Your responsibility is to review, adjust and accept the Initial Plan document before moving forward with the implementation project. This is your opportunity to make certain that the HarrisData Project Team understands your business and your vision, and will be able to work with you to achieve that vision.

Transferring knowledge to your Project Team

Once you have accepted the Initial Plan document, the HarrisData Project Team will typically start the process of transferring knowledge about the HarrisData system to your Project Team. Several events can be used by the HarrisData Project Team to facilitate this knowledge transfer.

Post-Evaluation Systems Audit

This knowledge transfer process starts with a review of the current status of your organization and the systems supporting your business process – the Post-Evaluation Systems Audit. This task will make certain that all participants on the Project Team have the same perspective on the problem and the vision of the solution.

Project Management

The HarrisData Project Team will work with you to define the composition of your Project Team, including implementation roles and responsibilities appropriate to your project.

Technical Training

Your Project Team members will benefit from an introduction to the basic operations and technology involved in the HarrisData system. IT staff participating on the Project Team may require more focused training to prepare for the implementation in the areas of

- ? Control Panel Plus
- ? System Setup and Operations
- ? Technical Reference Materials
- ? Implementation Tools
- ? Support Overview

Core Solutions Training

All members of the Project Team should participate in the Core Solutions Training, where common application functionality and documentation are presented. This information provides the basis for team members to communicate better with HarrisData and with each other.

Application Specific Training

Where key areas of the software are driving the value of the solution, the Project Team may request application specific training in advance of the preparation of the detailed implementation plan. This training may help clarify and scope any additional work required in extensions or modifications of the system as delivered by HarrisData.

Development of Detailed Plan

After the knowledge transfer is complete, the Project Team must focus on organizing the information and developing a detailed Project Plan. The detailed Project Plan is the road map for the project, identifying activities, responsibilities, deadlines, milestones, and expected costs. The detailed Project Plan should be developed by your Project Team, and should be approved by your Management Team before proceeding with the Project. The Project Plan will then serve as the standard against which the progress of the implementation will be measured.

Plan requirements

The detailed Project Plan may be developed in a sophisticated planning tool such as Microsoft Project, or may be jotted down on a few sheets of paper. Regardless of how the plan is developed and presented, the detailed plan must address the following:

> ? Clearly identify all tasks to be performed

> ? Assign responsibilities to identified personnel

> ? Establish timeframes and deadlines

> ? Identify budget impact

The plan should communicate to all readers what the expected implementation process will entail, and what results are expected by what dates. The plan also must have enough information to provide the Project Team and the Management Team with the ability to hold individuals accountable for performing tasks on time and under budget.

Typical Plan components

Typical detailed implementation plans must incorporate high-level project management, technical implementation activities, and business implementation activities. Key topics and questions to consider for each area of the plan are highlighted below. Detailed discussions of each of these areas are presented in subsequent sections of this paper.

Project Management

> ? Single or multi-phase implementation

> ? Define procedures to work the plan – including weekly action meetings

> ? Create vehicles for constant communication

> ? Establish Change Control procedures

> ? Define and monitor the critical path

Technical Implementation

> ? What steps are necessary?

> ? Who is responsible?

> ? How much will it cost?

? How long will it take?

? What are the critical steps?

? What contingencies do we have?

Business Implementation

? Who needs to be involved?

? What will they need to do?

? When will they be required?

? How much time will it take?

? Must not stop business!

Managing Risks

Detailed plans and focused execution should yield a trouble-free implementation. However, there are identifiable risks associated with any software implementation project. Risks generally arise from one of four major categories:

? Resource availability

When resources deemed critical to a particular step in the process become unavailable for any reason, significant delays occur. Ripple effects throughout the project plan may result, causing a major change in the expected finish of the project based on a small change due to the resource constraint. To manage this risk, first check the calendars of all critical resources and gain commitment at the start of the project. Then, make certain that critical path steps in your plan have contingencies for unavailable resources. Build in enough extra time in your plan to utilize alternate resources if any particular resource becomes unavailable.

? Missed deadlines

Missing a deadline early in the project may not seem to be significant, but missing a deadline in a software implementation project frequently causes significant delays in the completion of the project. Because some milestones may be based on quarter- or year-end assumptions, a one day slip early in the project can mean a one quarter (or one year) slip in the project delivery. Make certain you understand the critical path for your project, and you understand what steps depend on what other steps. Build-in as much buffer time as you can afford into steps in the critical path. Then execute aggressively – get the steps done on time!

? Scope creep

Scope creep is sometimes the most difficult risk to manage in an implementation project. When enthusiasm is building over a new system and new processes, you will be tempted to expand the project a little here and a little there to gain marginal projected benefits. Wherever possible, defer any non-essential changes to the plan until after the initial "live" date. Then you can perform a cost-benefit analysis on any new ideas for using the software. You should always get the base software working first!

? Cost overruns

Your actual costs may exceed your estimates by the time the project is complete. Make certain you have identified the major cost sources for the project and carefully evaluated the estimates for accuracy. Work with your vendor to insure costs are predictable and stay in line. If costs go over budget, be prepared to justify the expense in terms of the overall return on the project, rather than focusing solely on the explaining the individual variance.

By managing these risks carefully the overall project can be kept on time and on budget, allowing your organization to gain the expected benefits of the software.

Publishing the Plan

The final step in the planning phase is publishing your detailed plan. A published plan will improve communication between members of the Project Team, your executive management, your HarrisData Project Team, and any others involved in the implementation. The published plan provides both a roadmap for the project, and a standard against which progress can be measured. Even so, the plan must remain a dynamic document, constantly updated to reflect realistic expectations based on progress made.

The plan and subsequent revisions should be available to both your organization's Project Team and Management Team. Periodic reporting of progress against the plan should be reported in an easy to understand format focused on milestones completed and exceptions to deadlines or budgets. Project management tools such as Microsoft Project can be used to easily create updated Gantt Charts, Pert charts, and budget summaries on a weekly or monthly basis throughout the project.

Effective project management is crucial to the success of your implementation project. Your organization needs to be intimately involved in managing each task – regardless of who is actually doing the work – in order to minimize the risks. Without management oversight, one significant issue, or even a collection of seemingly insignificant issues, can cause the project to run over budget or behind schedule.

The process also normally requires changes in long-standing operating policies and procedures. Those involved in the project must be prepared to question current procedures and policies and work to implement changes beneficial to the organization as a whole. However, change for the sake of change is not productive. Your implementation project must incorporate a management structure to address change issues as they arise, and implement changes deemed beneficial to the organization.

The quickStart methodology strongly recommends three roles be created within your organization to effectively manage the project.

Steering Committee
The Steering Committee is comprised of senior management and the Project Manager. The Steering Committee must have the responsibility for a successful implementation and the authority to make decisions relating to the project. The duties of the Steering Committee typically include:

- ? Setting the goals and objectives for the project

- ? Making the necessary resources available to ensure the schedule is kept

- ? Making policy or procedure decisions as necessary

The Steering Committee will meet as often as necessary throughout the life of the project. Status meetings typically occur on a periodic basis – often every other week. The Steering Committee may also be summoned to an action meeting whenever the project timelines or budgets are threatened and a decision needs to be made.

Project Manager
The Project Manager is typically a full-time resource dedicated to the project. The Project Manager has the responsibility of keeping the project on track by ensuring that the Project Team is carrying out the directives of the Steering Committee.

As the project will likely result in some level of business process re-engineering, dramatically altering or eliminating some job functions, the Project Manager must report directly to the Steering Committee or the President for any matters relating to the project. While the Project Manager does not have unilateral authority to change or eliminate job functions, the Project Manager must have the authority to direct the Project Team to make such changes when directed by the Steering Committee.

The Project Manager must be held accountable to the organization for

- ? Keeping the project on schedule

- ? Keeping the project under budget

- ? Developing new policies or procedures for approval by the Steering Committee

- ? Tracking progress toward goals and objectives set by the Steering Committee

Project Team
The Project Team is responsible for executing the Project Plan as directed by the Project Manager. The team is typically made up of representatives from each department affected by the project. The primary responsibilities of the team are the coordination of departmental activities related to the project and evaluation of the need for procedure changes related to the project.

Managing the people involved in the project can be made simpler with the application of four basic rules of project management:

Work the plan
Use the Project Plan as the guide for all implementation activities and scheduling. Keep the plan updated continuously with changes resulting from successful completion of tasks, approved change requests, any failures to meet deadlines or budgets, and any new resource constraints. Review the plan weekly (at a minimum), with the Project Team, and review any changes to the plan at each Steering Committee meeting.

Use the plan to help make decisions. If your plan is up to date, and an unforeseen constraint emerges, the plan will help you evaluate alternatives. For example, if an IT staff member tasked to perform data conversions becomes ill, the plan can tell you what needs to be done, by when, and for what budgeted cost. Then you can quickly evaluate alternative strategies to manage the problem, such as assigning an alternate IT staff member, or outsourcing the task to a third party consultant. The implications of your decision should be clearly visible in the plan. Once your decision is made, revise the plan and communicate the significant changes to all affected parties.

Constant Communication
It is nearly impossible to over-communicate during the life of an enterprise software implementation. Weekly status meetings with the Project Team, bi-weekly status meetings with the Steering Committee, and regular status meetings with vendors offer the opportunity to review key documents (the Project Plan with any changes, Change Requests, etc.), ask questions, and make certain all parties are operating with an appropriate perspective. Status meetings should be regularly scheduled and brief.

Meetings are not the only effective method of communications, however. Consider using several communications vehicles during the course of the project. Some alternate channels of communications include:

? E-mail revisions of key documents and status reports to Project Team and Steering Committee members as they become available

? Post key documents and information on a company intranet site dedicated to the project

? Publish a newsletter outlining the goals and objectives of the project, documenting the progress made to date, and setting appropriate expectations for future tasks

? For urgent or critical communications, consider the telephone or a personal visit!

Use change control procedures
Document and follow a specific procedure to manage any proposed changes to the project. Communicate this procedure to everyone involved in the project. A change request should include documentation of the proposed change, the expected benefits, the expected cost of the change, the impact on the project schedule, and the impact on related procedures. The change request should be reviewed first by the affected departmental representatives on the Project Team, working with the Project Manager. If approved, the Project Manager should present the change request to the Steering Committee for final approval. If accepted, appropriate changes must be made to the project budget and schedule. Effective change control processes keep your implementation in control, and help insure that incremental costs are justified.

Watch the critical path
In every plan, there are certain tasks which form a "critical path." In this model, each series of tasks that must be completed in sequence in order to finish the process is a path. The critical path is determined by adding the estimated time for each of the tasks in each path – the longest path is the critical path. Since the whole project completion time is dependent on the critical path, identification of the critical path and aggressive monitoring of the progress of each task on the critical path will significantly increase the probability of success.

The technical implementation activities are the tasks in the implementation project typically performed by your IT staff or a trusted technology business partner. Not all activities discussed in this section need to be performed for every implementation project. The needs of your project will dictate which of these activities may be required or desirable.

The quickStart methodology looks at activities that produce the most significant return on investment and performs those activities during the implementation project. Typically, these activities include installation, configuration, data conversion, customization, and education. Other technical activities, such as infrastructure preparation, may be required on a case by case basis.

The technical implementation activities reviewed in the quickStart include:

- ? Infrastructure
- ? Installation
- ? Configuration
- ? Data Conversion
- ? Customization
- ? Interfacing
- ? Modification
- ? Education

Each activity is reviewed, paying particular attention to when the activity might need to be completed, and how to estimate the time, resources, and money involved in completing the task, and integrating the task into the overall project plan.

Infrastructure
The first step in the technical implementation process is to establish and validate your technology infrastructure.

HarrisData software operates on the IBM e-server iSeries computer running i5/OS (or OS/400). Check with HarrisData for the most current System Requirements to make certain you have all of the appropriate versions of licensed software and fixes for optimal operation of your system.

HarrisData software supports multiple clients. Internet browser clients (including Microsoft Internet Explorer, Mozilla, and others) may be used for system access. The IBM iSeries Access family of products supports character-mode access to the system from a variety of operating environments, including Microsoft Windows based PCs and Internet browsers. HarrisData software continues to support 5250 terminals (including support for EMPTUI), and supports specialized devices (such as time clocks and hand held scanners) through both 5250 and HTML protocols.

HarrisData software operates only on the server, but clients accessing the system typically use a TCP/IP based network to facilitate communications. High-speed connectivity to the Internet is desirable but not required to run HarrisData software.

Optional infrastructure components that can be leveraged by your HarrisData software include e-mail (iSeries SMTP server, Lotus Notes, Microsoft Exchange, or any other SMTP-based e-mail), and print services (AFP from IBM or third party). You should also check to make certain that any supported partner software solutions (EDI translators, Credit Card processors, etc.) are installed at supported version numbers.

Installation

Installation of HarrisData software is easy. Anyone with sufficient authority to your system can perform the installation. Read the Installation Guide to make certain you understand the process, and prepare your responses to the prompts the installation process will give you for your configuration. Check the readme.txt file on your CD for any last minute information.

Simply insert the CD/DVD into the drive in your iSeries server, enter a single command, and answer the prompts. Your HarrisData software will be installed on your system and ready for you to move to the next step.

Upgrading HarrisData software is nearly as easy. The documentation will help you prepare for the upgrade, and then the installation programs will upgrade both your database and your software.

Configuration

Configuration is the process of setting parameters and entering information into the system that will tailor the solution to meet the needs of your organization.

The configuration process relies on you to make decisions about how to best configure business processes (such as Order Entry) to optimize the flow of information within your organization. A careful review of relevant system documentation and consultation with HarrisData application experts will help you understand your alternatives. Once you have determined the optimal configuration for your organization, HarrisData experts will help you configure the system, focusing on teaching you how to make configuration changes as your business changes.

Data Conversion

Data conversion is the process of moving your current information into the new system. Automatic data conversion programs may be used to rapidly convert large quantities of electronic records into the formats required by the new system. Paper records and certain smaller, rarely changing files may be

converted through manual keying of the information into the new system. The effort and expense of the data conversion process depends critically on the quality and quantity of source data you want to move into the new system.

Most critical to the data conversion step is the quality of your current data. If significant clean-up of current information is required prior to conversion, this portion of the project may take significant time and effort. Internal resources will need to be utilized to aide in the process of identifying dirty data, and in determining what the data should be. The data cleansing step should be viewed similar to cleaning out old file cabinets. If the people cleaning out the cabinets can't read, they can only clear them out according to simple rules (e.g. throw out all "green" sheets of paper and keep the rest). Intelligent clean up of old paper files requires knowledge of what the files were, the ability to read and understand the forms and documents in the files, and the ability to interpret the sticky notes and mark-ups on the documents. Even more intelligence is required to know when a document is missing or incomplete. Cleaning electronic data files is no different. Be prepared to apply appropriate resources for an appropriate time to clean up the data you will use in the new system before actually converting it.

The quantity of data to be converted may also affect the time and effort involved in this step. Rebuilding extensive history files can take significant time. Always review the trade-off of converting historical data versus using the older system to access it directly. You must justify, according to the value your organization ascribes to increasingly aged information and to the frequency that the information is accessed, whether or not to convert some historical files. HarrisData experts will also frequently recommend that for smaller files of information, where the quantity of records is low and the information changes infrequently, simply entering the information into the new system may be a faster and more cost-effective process than creating data conversion programs.

Once you have prepared for the data conversion process (your data is clean and you have decided what to convert), you can begin to build the specific processes to convert the data. You'll review each file to be converted and make decisions about how to develop the conversion processes. You'll determine whether the file changes rarely, in which case you can convert the file once, or whether it changes frequently, in which case you'll want to build the data conversion processes to be repeatable until your system goes "live." You'll select an appropriate technology to perform the conversion. HarrisData offers a data conversion utility that can be used to map data from your files to HarrisData files and automatically convert data. Other tools, including query tools and spreadsheet uploads, can also be used to convert data, giving you maximum flexibility to choose the best tool for the job for each file. Then you'll execute the conversions and review the results. Expect to run the conversions of major files, such as customers, vendors, items, or employees, multiple times to get them right. Expect to re-run any "status" files, such as open orders, current hours worked, or open shop orders, immediately before you go "live." Validate the results of each conversion before you declare your new system "live."

Planning Notes
The data conversion process can be performed wholly by your organization, using the tools supplied with your HarrisData system, tools provided with your IBM iSeries, spreadsheets, and other technologies. You may choose to contract a technology consultant to develop and manage the automatic data conversion programs you will use in the project. Frequently, utilization of skilled technology consultants can speed up this process, while freeing up members of the IT staff to focus on other unique aspects of the implementation project. Whether you perform the conversion within your organization or using technology consultants, the IT staff typically is responsible for insuring that all relevant data is converted into the new system.

Customization
Customization is the process of using available tools and techniques to provide a custom fit for your organization. The customization process generally does not affect what the system will do, but focuses

on changing the way the system looks in order to both maximize your company's brand and simplify the system for business users.

A common customization effort involves branding the HarrisData Enterprise Information Portal with your company's brand. This process uses HTML and CSS techniques, and can frequently be set up in a matter of hours by qualified personnel.

Additional customization efforts focus on the establishment of tailored menu systems, whether through the browser interface or the 5250 interface, to limit the number of choices facing each user or group of users as they use the system. By focusing users on a small number of relevant options, you can make the users more productive and happier with the new system.

HarrisData software supports multiple User-Defined Fields (UDFs) to facilitate the capture of additional bits of information associated with customers, vendors, contacts, etc. During the customization process, you can determine which UDFs should be used, give them unique names relevant to your business, and determine where they should appear.

The HarrisData Enterprise Information Portal also supports external links – links to web sites outside of the HarrisData application. These links might include online shipment tracking services, online benefits information, online product specifications, and more. The customization phase gives you the opportunity to incorporate and define these external links for your applications.

The customization process also allows you to review and determine how you want information presented to your users. The HarrisData Enterprise Information Portal supports many alternate formats for numbers, dates, even names, to allow you to present information from your HarrisData system in the way that is most comfortable for your users.

Planning Notes

Customization techniques are typically learned by and then implemented by your internal IT staff or technology consultants. Many customization techniques can be learned and implemented by your business users, if desired. Most importantly, customizations can be applied at any time, and should not be on the 'critical path' of the implementation project.

Interfacing

Interfacing is the process of connecting your HarrisData applications with other applications where information must be passed or shared between the applications.

HarrisData works with a variety of specialized software vendors where interfaces between the applications have been developed by and are supported by one of the vendors. These interfaces include functionality to support

- ? Specialized Forms and Print Functionality

- ? Automated Credit Card Processing

- ? Shipping/Logistics Compliance

- ? Sales/Use Tax Compliance

- ? Payroll Tax Filing and Payment Compliance

The current HarrisData Systems Requirements document provides specific products and versions with vendor provided support for the interface.

Interfacing with other applications – including home-grown applications – will require additional effort from your IT staff or technology consultant. HarrisData provides a number of methodologies to support interfacing with minimal effort. These methodologies are designed to minimize the effort involved in maintaining the interfaces over time, focusing primarily on isolating the interfaces from the process of upgrading the application software. HarrisData software supports import and export processes from

many areas of the software, simplifying the exchange of data between applications. Where an import/export is insufficient or unavailable, HarrisData software supports exit points and programming standards that allow your IT staff to create interface programs without having to worry about significant "re-application" of the changes in subsequent upgrades of the application software.

HarrisData provides extensive system documentation to aid in interfacing efforts, including source code for the applications, database definitions and documentation, program object references, and more. These resources coupled with HarrisData hotline support should make any interfacing activities demanded by your project relatively easy to manage.

Planning Notes

Standard interfaces to supported partner solutions can be licensed from and supported by HarrisData. Custom interfaces to other systems are typically developed and supported either by your IT staff or by technology consultants. If your implementation will require these types of interfaces, your IT staff can help estimate the cost of each custom interface, and the amount of time it will take to develop. Then your Project Team can make effective recommendations whether to use internal or external resources to develop and/or support a custom interface, based on cost and project deadlines.

Modification

Modifications represent programming changes made to your core HarrisData system to meet special or unique requirements of your business. HarrisData will work with you to avoid modifications wherever possible, and will work with you to eliminate modifications when upgrades to your applications offer functionality that can replace them.

Modification efforts usually arise during reviews of the system with business users. During these reviews, you may uncover gaps between what the business users want the system to do and what the system does. There is a great temptation to simply write down all of the functional gaps and plan to incorporate modifications to address them. Before incorporating modifications into your plan, work with your HarrisData experts to make certain that the modifications are appropriate and cost-effective.

Your HarrisData experts can help you assess whether any perceived functional gap is based on a misunderstanding about how the system will process information. Users frequently lack sufficient perspective to understand the implications of data movement through a modern, integrated application. They may be looking for functionality to compensate for the inability of your current systems to share information effectively, and may not realize that the new system will address their problem in a later step in the process.

Your HarrisData experts can also help you cost-justify any functional gaps that are identified. Before committing to modifications in your implementation project plan, you will want to understand both the investment you expect to make in modifying the software and the value that will be delivered to your organization as a result. When the value is significantly higher than the investment, committing to a modification becomes easy.

Modifications may be performed by your internal IT staff or technology consultant. If modifications are necessary in your implementation, you should consider special controls on the time and money expended on each modification. One of the biggest causes of cost overruns in application implementations is uncontrolled modification expense, and the ripple effect of missed deadlines due to custom programming projects.

HarrisData recommends using "non-invasive" techniques to perform modifications in an effort to reduce the cost of re-application of modifications as time goes on. These techniques include numerous exit points throughout the applications that support your ability to extend the applications without actually modifying the HarrisData source code. Consequently, should your marketing manager discover a new pricing algorithm never before contemplated, you can use the pricing exit to jump out of

HarrisData application control just long enough to perform a special price calculation and then seamlessly return control to HarrisData.

Customers who make modifications to HarrisData applications frequently focus on a few areas of unique requirements. Pricing and commission calculations may be unique in your organization. Alternate screen formats for the unique screen sizes associated with various handheld devices is another area where non-invasive techniques can allow for high-value modification efforts without the pain of re-application each version.

HarrisData offers a unique solution for modifications that may have broad market appeal. The HarrisData Collaborative Development program focuses on enhancing the application software package through the implementation of "modifications" as standard components of the software. The HarrisData Collaborative Development program offers you the choice of having HarrisData develop new functionality on a fixed bid basis with a fixed delivery date. Best of all, the HarrisData Collaborative Development program results in standard, supported software. You never have to worry about re-application of modified code, missing documentation, or where to get help. Your new functionality will simply become part of the HarrisData core applications, with HarrisData standards, quality testing, documentation, and support.

Planning Notes

You may choose to perform any required modifications with your internal IT staff, or to contract a technology consultant to develop and manage any system modifications. Frequently, utilization of skilled technology consultants can speed up this process, while freeing up members of the IT staff to focus on other unique aspects of the implementation project. This decision does not need to be made upfront. Typically, your IT staff is responsible for working with HarrisData experts to define and cost-justify any gaps (including a high-level estimate of the effort required to address the gap through modification). The estimated effort and cost, along with the expected value, should be incorporated into the implementation plan. When the implementation project has progressed to the point where any modifications must be developed, you can evaluate more carefully the most cost-effective way to develop them: internally, technology consultant, or HarrisData Collaborative Development.

Education

Education of the IT Staff about operation of the system is critical to the long term success of the project. Your staff may need education about the operation of the HarrisData application software, operation of the iSeries platform, or operation of any additional software critical to the implementation project.

HarrisData application experts will typically train your IT staff on the operation of the HarrisData application software during the implementation project. During this training, your IT Staff can also learn where to find critical reference documentation including database definition, source code, data conversion utilities, and more, to help them build extensions to the HarrisData system easily and cost-effectively.

Training on the iSeries platform is readily available from IBM and authorized IBM Business Partners both in person and online. Consult www.ibm.com/iseries for more detailed information about the availability and cost of courses.

Additional training for other vendor's products is typically conducted by the vendor, to provide you maximum access to the experts on each area of your solution.

The activities covered in the Business Implementation section are those that directly impact the business people (non-IT staff) in your organization. These activities are often the most critical activities in an implementation, but frequently receive too little attention during the planning phases. The quickStart methodology recognizes that application software is designed to automate business processes, and centers implementation activities on preparing business people for the new software and new processes.

Business implementation activities addressed by the quickStart methodology include:

- ? User training

- ? Business process review

- ? Customization

- ? Validation

The first step in getting the business users involved in the project is User Training. In the early phases of the project, key business users on the project team will be trained in the basics of your solution. The key users will be responsible for leading the Business Process review. This process will result in reviewing, adjusting, and even eliminating business processes within the organization based on the capabilities of the new software. These key users will then be responsible for leading the final Customization of the system, in particular the security and access to the system's functionality for each user or group of users within the organization. Frequently, these key users will also be expected to train additional users within the organization just prior to the validation phase, and to inspect the results of the validation phase before going "live."

User Training
User training should be conducted as near to the "live" date as possible – preferably after the customization is complete but before the validation begins. User training may be conducted in many ways, including on site or online, with HarrisData staff or your own trainers (after "Train the Trainer" sessions), in small 2 hour units or several days at a time. However the training is conducted, successful training must be focused on your defined business process (not just how to use the software) and should use your converted data. Your users should expect to learn the processes they will use on a daily, weekly, or monthly basis, and should expect to ask and get answers to questions about exceptions that may arise. They should expect to learn about the specific business transactions they must conduct, and about the impact of those transactions on the rest of the enterprise. Once effectively trained on an integrated solution, your business users should understand the what, why, and how of your new, more efficient business processes, and be ready to begin the cycle of continuous improvement that will maximize your return on investment in the software.

Business Process review
The Business Process review involves simulating each business process through the standard software, and identifying where current processes need to be adjusted or eliminated. Each input form, each output form and report, and each step of the system's processing logic should be reviewed.

Key business users must determine what information is necessary to capture and process to support the business. Often, business users will be uncomfortable with new processes that eliminate steps or eliminate the need to collect certain data. They will feel the need to ask for data to be added to screens and/or reports because the data has always been there. The Business Process review must focus only on information required to more efficiently manage the business. The key users conducting the review must be prepared to provide harsh judgment on unnecessary requests from users seeking to avoid change.

Should change be required, there may be additional work to be performed by the IT staff in reformatting reports or output forms, or developing easy ways to capture required information. While

this extra effort is to be minimized, careful planning prepares the project team and the budget for such eventualities.

Customization

Business users must also be involved directly in the implementation of access and security rules. In particular, managers and supervisors must take an active role in defining access and security for their employees. While IT functions typically manage user profiles in an iSeries environment, business users must determine who needs access and what role they may have. Business users can be granted permission to create and manage users who use only the browser-based portal software. Determining the ongoing process for set up and maintenance of user profiles and basic authorities will be critical to the project's long term success.

For any defined user, the HarrisData system allows for many levels of security – from basic menu security to restrictions on records viewed (user view security) and on record level actions such as add, change, and delete (privileges). Careful consideration should be given to what users can access what information, functionality, or privileges prior to going "live."

When portal technology is implemented, even more flexibility is offered to customize what users see and do as they use the system. Users or groups of users can be presented with uniquely formatted "home pages" throughout the portals with quickLinks. The key business users must help determine what information needs to be presented to what users on each home page.

Validation

Validation of the system is critical at all phases of the implementation to insure both that business processes embodied in the system are accurate, sufficient, and complete, and to make certain that information processed by the system is processed in an accurate and timely matter. Only your business people can effectively validate your application software before, during, and after the implementation project.

Many organizations have difficulty identifying available resources to assign to validation tasks that seem very costly in time and effort. However, there are effective methods of incorporating business people in validation activities while minimizing the time and effort required.

Many implementations recommend a full parallel test of the new application software before going "live." A full parallel test requires business people to enter data into two systems (the old software and the new), while learning one system (the new), and to compare the results of any output from both systems to see if any significant variances occur. This parallel processing may be recommended for days, weeks, or even a full month. While parallel testing provides the most exhaustive and detailed confirmation that information will continue to flow accurately through the new system, this type of testing may also leave your employees exhausted before the testing is complete. More importantly, it is difficult to run parallel testing against business processes that have fundamentally changed. For example, if one of the reasons you have implemented your new application software is to take advantage of kanban inventory management techniques, you will find it difficult to compare the suggested POs from MRP with the fully automated replenishment processes embodied in kanban.

The quickStart methodology can accommodate parallel testing, but recommends a less taxing approach. Using the concept of a "day in the life," your team can process all transactions for a given day through the new system, and get a good idea whether the information coming out is accurate and complete. Rather than trying to validate all facets of the system in real time, the quickStart focuses on validating the key components of the system (as defined by your organization's objectives) by processing real transactions from a typical day. The pressure on business people is lower, enabling them to better react to the day to day variability of their jobs, yet enables you to validate sufficiently to be comfortable going "live."

Equally critical to the pre-"live" validation is the post-"live" validation. Once you have begun using the software, business people should take extra steps to insure that the first and second times they perform any business process under the new system, that they double check that the system is responding as expected. For example, the quickStart methodology recommends that business people double check the financial statements for the first two periods they are "live" on the new system.

HarrisData experts can be on site or on the phone to help you review processes, reports, forms, and transactions to make certain the software is operating according to your objectives both before you go "live" and during the Final Validation phase. The Final Validation typically ends after validating the financial statements after closing the books for the first period after going "live."

The HarrisData quickStart methodology focuses on getting your organization "live" on HarrisData software as quickly, economically, and predictably as possible. Once the software is "live," you will turn your focus towards a process of continuous improvement. HarrisData experts will be available to you to help you with identifying, assessing, and addressing new opportunities to better utilize your software to reduce costs and improve management. Ongoing support from HarrisData will insure that your software is delivering the return you expected, and can help increase the return on your initial investment. HarrisData offers a variety of programs to help you maximize your software's value after the initial project ends.

Ongoing training

As your organization becomes more familiar with the system, you will begin to adjust your processes and use of the software to create greater efficiencies. When deploying new business processes, you'll need to re-train your business users.

Over time, new enhancements to the software or changing business requirements will make it possible for your organization to leverage new functionality within the software to improve efficiency and reduce cost. Again, business user training will be critical to the success of these efforts.

Further, your user community will change over time. Promotions, terminations, new hires, new responsibilities, all drive the need for additional training. Even the all-too-common circumstances requiring managers to wear "multiple hats" will frequently require additional training efforts.

To address these ongoing training needs, determine your organizational philosophy during the initial implementation, and then plan accordingly.

Your organizational philosophy may center on a "Train-the-Trainer" approach, such that your internal training resources can deliver appropriate and focused training to your organization at your convenience. Remember to schedule appropriate training for your Trainers at HarrisData University (see HarrisData University below) to keep up with new versions of the software.

On the other hand, your organizational philosophy may focus on remaining lean – you may prefer to contract with HarrisData to perform ongoing educational services. Simply contact HarrisData Support and schedule time at HarrisData University for your trainees.

Either way, make certain that your training is as focused as possible, to get the maximum benefit from the time invested.

Ask the Expert Hotline Service

The HarrisData customer support hotline is available to all HarrisData Preferred Customers. The hotline is your primary vehicle to communicate with HarrisData about any issues with your software. Contact the hotline to:

- ? Answer questions about your HarrisData software
- ? Schedule training and implementation services
- ? Report on status of implementation
- ? Report problems and get fixes
- ? Order upgrades
- ? Request enhancements
- ? Discuss Collaborative Development opportunities
- ? Order additional documentation or replacement CDs
- ? Get help with anything else related to your HarrisData software

The HarrisData hotline service is staffed by application experts who can assist you with everything from customizing user access to establishing appropriate security. HarrisData experts will frequently initiate e-meetings through the Internet to allow them to see you operate your software and better understand your issues. These e-meetings also allow experts to share information and software accessible from their desktop with you. With this technology, HarrisData experts can work through solutions to your problems in current versions and future versions while you work with them. Your HarrisData Project Manager can use e-meeting technology to share Microsoft Project information and other documents to help you drive your implementation project. Hotline hours can be extended to 24x7 with advanced notice (additional fees apply). More information about the hotline is available on our web site at www.harrisdata.com.

Extensive Documentation

Context-sensitive online help offers both users and IT staff easy access to the information they need to use the software effectively. HarrisData also publishes extensive documentation in both printed and electronic (pdf) formats. HarrisData customers have the right to make copies of the documentation as needed for use with their licensed HarrisData software, or can order additional copies direct from HarrisData.

HarrisData software also offers the ability to seamlessly blend in any documentation developed specifically for your organization. You can link to custom documentation in virtually any format (including doc, pdf, and html) from virtually anywhere in the system. Extending the documentation allows your organization to publish specific procedures and policies online and put the documentation where users need it, when they need it.

HarrisData University

HarrisData University (HDU) is the forum under which ongoing training and implementation support is delivered. HDU provides significant flexibility in both content and delivery, and provides attractive pricing alternatives for frequent use of brief training sessions.

HDU offers standard courses (see our web site at www.harrisdata.com for a current list of course offerings), as well as custom courses designed to fit your organization's needs. Whether you have new employees that need a couple of hours of introductory training for their job function, or IT staff looking to implement an integrated web site, HDU can be customized to fit your needs.

HDU content is typically delivered via e-meeting technology over the Internet, reducing the cost of ongoing training by eliminating related travel expenses. Your HDU instructor will first connect with your desktop over the Internet, then use HarrisData software operating on your servers and/or HarrisData servers as necessary. The e-meeting technology also enables HDU to deliver education and implementation support in increments as small as 2 hours. Alternatively, HDU can travel. HDU instruction can take place at your site or at HarrisData headquarters (on site training requires a minimum of two days). Contact the hotline for additional information about pricing and availability.

HarrisData User Group

The HarrisData User Group offers opportunities to extend your network of IT and business advisors to the whole HarrisData User Community. The HarrisData User Group sponsors two key programs: the Lunch&Learn program and the User Conference.

The Lunch&Learn program offers teleconferences and web-based seminars focused on specific topics nominated by the User Group Advisory Committee. These topics include action-oriented sessions such as the annual "Preparing for Year End" session, forward-looking sessions such as "Mobile HarrisData," and knowledge-transfer sessions such as "HarrisData Security." The sessions are generally scheduled monthly. More information about the Lunch&Learn program, including the schedule of upcoming sessions and an archive of past sessions, can be found on the web at www.harrisdata.com.

The User Conference is held annually in Brookfield, Wisconsin, and attracts hundreds of attendees. The conference offers a variety of activities over 2 ½ days to help you maximize the value of your HarrisData software. Extend your knowledge with 78 sessions and the popular "Ask the Expert" session where you can reserve one-on-one time with HarrisData experts to get your questions answered. Extend

your software by learning about the latest enhancements and participating in discussions focused on determining the priorities for the next series of enhancements. Extend your system through the partner technology and services on display in the Partner Pavilion. Extend your network at various activities designed to encourage interaction between attendees. The User Conference offers it all for one low fee. Visit www.harrisdata.com for more information about the User Conference.

Software Issues

HarrisData has implemented the Aggressive Quality Initiative with the goal of making certain that 100% of the software operates substantially in compliance with the documentation 100% of the time. Unfortunately, even with a comprehensive design methodology, rigorous coding standards, automated testing, and a Quality Assurance group dedicated to uncovering any problems, software defects ("bugs") still occasionally emerge.

The Aggressive Quality Initiative also helps define the HarrisData response to any reported issue. If you have an issue with the software, please report the issue to the hotline. HarrisData experts will work with you to diagnose the problem and quickly determine whether it stems from a misunderstanding or a software defect. The HarrisData experts will also work with you to find a way to temporarily work around the issue, so you can resume doing business as quickly as possible. If the issue is related to a software defect, HarrisData will quickly prepare a "fix" for the defect, and deliver the fix to you either electronically or on CD. HarrisData experts will continue to follow up with you until you have verified that the fix corrects the software defect.

Over time, HarrisData may group a series of fixes into a "Fix Level." A Fix Level is just a more convenient way to deliver and install a group of fixes to your HarrisData software. HarrisData continues to improve the process of installing and managing fixes on your system, giving you the flexibility to install and uninstall fixes selectively, and helping you understand and manage any dependencies between fixes and/or versions.

Eventually, a new version of HarrisData software will be released, incorporating the accumulated fixes from the prior version(s).

System Enhancements

HarrisData continually develops new and improved software for customers. While not every enhancement to the software is applicable to every HarrisData Customer, we are confident that the enhancements bundled into each new version of HarrisData software will be compelling to virtually every HarrisData customer. New versions of HarrisData software are available as upgrades at no cost to all HarrisData Preferred Customers.

Enhancements included in new versions of the software come from many places. Our User Conference supports open enhancement discussions that help generate new ideas and prioritize them. The hotline receives new enhancement ideas directly from HarrisData customers. HarrisData experts contribute enhancement ideas that will reduce training and support efforts. Trends in the application software market and competitive factors will also generate enhancement ideas. We track thousands of enhancement ideas, prioritize them, and incorporate the high priority enhancements into new versions of the software.

Sometimes, the process of incorporating a particular enhancement into the software may take too long to meet your requirements. A customer seeking a change in the HarrisData software that can not wait for the normal enhancement process has two alternatives: modify the system or sponsor a Collaborative Development project.

For customers choosing to modify their licensed HarrisData software, HarrisData provides a variety of documentation, tools, and techniques to help make the task as cost effective as possible. HarrisData provides source code for all programs, detailed descriptions of all database definitions, online reference materials describing each callable ILE program, and exit points in key processes to eliminate the need to re-apply modifications. In fact, if you discover a process that requires a new exit point, HarrisData will design the exit point and incorporate it immediately into the software, then support that exit point in future releases to eliminate future re-application of modifications.

For customers interested in a Collaborative Development project, HarrisData will work with you to define functional requirements appropriate for your organization and for the broader market of HarrisData customers. From these requirements, HarrisData will provide you with a proposal for a fixed price/fixed delivery project to enhance the software to meet the agreed-upon requirements. If you accept the proposal, you will have the opportunity to review and approve the detailed design, and to test and approve the enhancement before the project is declared complete. Once the enhancement has been delivered and accepted, HarrisData will incorporate it into future versions of HarrisData software, completely eliminating re-application work.

Ongoing Compliance

Technology standards, regulatory requirements, and industry standards are constantly changing. HarrisData delivers compliance-driven releases when necessary to help you cope with these changes as they occur. For example, annual compliance-driven releases are delivered for changes in human resources and payroll regulations driven by the IRS and other regulatory bodies. HarrisData participates in a variety of IBM programs to make certain HarrisData software remains compliant with current and future versions of IBM hardware and software. Check your specific product documentation for more information about ongoing compliance and how it can affect your products.

This White Paper provided a management overview to the process of implementing enterprise software solutions and the risks associated with the implementation.

Historically, failures to meet project deadlines or budgets have surfaced from lack of control in three major areas: data conversion, modifications, and interfaces.

Some management teams approached the project by assuming that virtually all user requests for changes to the software needed to be performed in order to realize the benefits of the solution. Some set their goal to automatically convert all data from their prior system without regard to its worth. This perspective lacked controls, and failed to match cost with value.

Some management teams, in an effort to control these costs, set limits on the changes users could request. A management team might set a budget for user modifications during the project. While this approach offers better controls, without the match of cost with value, the budget is quickly consumed by trivial changes, and leaves no budget remaining for important changes identified later in the project.

The most successful management teams force every user change to the approved plan to be rigorously reviewed against financial metrics. When each change is reviewed and approved or rejected by the management team based on the ROI, payback, or Net Present Value of the change, then the value of the finished project to the organization can only exceed initial expectations.

The secret of success in implementing enterprise software applications lies not in the technology, but in the execution. Build a plan that delivers clear value and execute it as quickly as possible. Then let the process of continuous improvement incorporate changes to your solution where each change is justified by the value it delivers to the organization.

Enterprise software can be implemented successfully by any committed organization. With a better understanding of the process and the pitfalls, you and your management team should now be better prepared to deliver a successful project with fewer risks to your organization.