NTIA TOP Grant 55-60-02002
DATCP IIS

grant evaluation for
wisconsin department of agriculture, trade and
consumer protection - integrated information system
top grant award # 55-60-02002

FINAL RESEARCH AND EVALUATION

For

WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE AND CONSUMER PROTECTION

INTEGRATED INFORMATION SYSTEM

Submitted to

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The National Telecommunications and Information Administration
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Final Grant Evaluation
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Evaluation Introduction

NTIA TOP Grant 55-60-02002 provides funding for a completely new, customer-based data integration system for core functions of the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). This is the required evaluation of the progress DATCP has made toward the goals stated in the grant application. This evaluation was conducted in the summer of 2004, completed in October 2004, and was conducted by staff and faculty of the School of Continuing Education at the University of Wisconsin in Milwaukee.

Grant Objectives – NTIA TOP Grant 55-60-02002

In its grant application, the Department of Agriculture, Trade and Consumer Protection (herein DATCP) describes the DATCP Integrated Information System (IIS) as "*a broad initiative to use a Department-wide, shared database and information system standard to advance the development of efficient, integrated and interoperable surveillance and tracking systems*." The foundation of the IIS activity has been:

- identification of technical (hardware, software and database) requirements;
- selection of a third-party license issuing and tracking system; and,
- implementation of such a system.

The grant contained a diverse set of objectives, but fundamental to each of the objectives was the requirement that third-party software support a consistent approach to customer/premise-based identification of customers and licensees.

During the execution of the work associated with this grant, it became clear that this would be a radical change for DATCP. As an example, DATCP has regulatory authority over Wisconsin businesses that store, apply or produce fertilizers. However, at the time of the initial grant application, the database systems that track these entities used a variety of software systems with only limited capability for data integration. In the event of a bio-terrorist act using pesticide application, Wisconsin was in a poor position to identify and track the source of the attack. The move to an integrated information system not only has improved DATCP's ability to do effective enforcement of regulations, but also now allows DATCP to enhance its surveillance abilities.

The DATCP grant application states that the IIS will create an effective foundation for integration of a wide range of agricultural information systems. In particular, the grant proposed to do this by:

- Making improvements in prevention effectiveness

- Making improvements in responsiveness to agricultural emergencies
- Improving service to customers
- Improving the timeliness of services to customers
- Improving the timeliness of processes
- Improving the quality of information in record keeping systems
- Ensuring optimum interoperability of systems
- Reducing unnecessary redundancy of record keeping systems
- Securing comprehensive information systems, and
- Enhancing responsiveness to requests for information

A principal part of this effort is:

> "*the use of a focal Customer/Premise ID key, [. . .which . . .] would make it easier to share information internally and reduce the number of information systems that perform similar functions.*
>
> *This is innovative in a number of ways. First, it would be the product of a Department-wide effort, which would bring together animal health, food safety and consumer protection interests. The support and participation of this working collaboration is key to the development of a single integrated system to effectively meet the diverse needs of these different stakeholder groups and one that is acceptable and useful to them."*

Project Tasks – NTIA TOP Grant 55-60-02002

In the Project Planning Report from November 2002, DATCP identifies nine project tasks:

1. The purchase of a third party vendor software package that specializes in the issuance of governmental-type licenses. The database that comes with the licensing software will be used as the basis for the new Department database.
2. Development of a Department-wide Customer/Premise ID-based data model. All Division in the Department will participate in the development of the model by contributing business requirements.
3. Purchase and installation of a server on which the Licensing application will reside.
4. Purchase and installation of a server on which the Department's database will reside.

5. Convert all Department data in legacy systems and load into Department-wide database.
6. Convert or re-build Department software to use Department-wide database.
7. Purchase PDA's for inspectors.
8. Develop software for PDAs that will replace paper inspection forms.
9. Develop method to capture Geo-locator co-ordinates with PDA. Match GIS co-ordinates with premise and capture information in Department database.

In order to complete these nine tasks, DATCP divided the work into forty separate project steps. These were identified as:

RFB submitted for Licensing software
Bids due from vendors for Licensing software
Selection of licensing software vendor
Prepare specification for application server
Procure licensing software
Form database design team
Purchase application server
Hire evaluator
Finalize guidelines for database design team
Install base Licensing software
Install and configure License application server
Prepare specifications for Database server
Begin design of Department wide Premise/CustomerID based department database
Design team collects and documents Department business requirements for database
Purchase Database server
Install and configure Database server
Final approval of data model for Department wide Customer/Premise ID based database
Reconfigure Department's network infrastructure to accommodate new servers
Complete data conversion plan for Department legacy data
Finish customization of Licensing software
Test Licensing software with database
Convert data to department wide database
Hire consultant to do website design work
Complete analysis and design of online licensing website
Complete testing of online licensing system
Complete modification of Department website to include licensing application and implement online licensing
Modify Department website to accept public information and possible "tips"
Hire PDA contract programmer
Finish analysis on PDA forms design
Spec out PDA requirements and decide which PDAs to buy
Purchase PDAs
Complete PDA based forms
Test PDA data collection in field
Implement PDA GIS coordinate data collection
Implement import/export of PDA collected forms and GIS coordinates
User documentation completed
Train inspectors to use PDAs
Final implementation of all products online and in the Production environment
Final Evaluation
Final Report

Grant History and Timeline

This TOP grant (#55-60-02002) was awarded on October 1, 2002. The grant is to be applied over a period of three years.

In the first six months of grant activity, DATCP did acquisition planning, requirements documentation, and a Request for Bids for the foundation licensing software. In that same time period, specifications for the application server were written. The application server was acquired using the State of Wisconsin's standard hardware and networking equipment procurement process. During that time, DATCP also built an interdisciplinary database design team – eventually finalizing the guidelines for the design team in February of 2003.

In the second six months of the grant period DATCP focused on two key objectives: planning for and acquiring the underlying database server, and beginning the collection of business requirements for the database. This work culminated with a data and application conversion plan for the Department's legacy licensing and information systems.

During the next year, the emphasis of DATCP's work on the project has been on the "conversion" of legacy licensing systems – from a variety of sources – into the new licensing and database systems. This work resulted in the building of new databases for each of the key legacy license areas. A focal point for this work was moving from an elderly database and networking technology to a contemporary database that would support the integration requirements of a common customerID and premiseID architecture.

During this same period, the University of Wisconsin – Milwaukee was hired in May of 2004 to complete the grant evaluation requirements for the project. An interim evaluation was proposed in June of 2004 and executed throughout the summer of 2004.

The final year of the project saw the completion of conversion from legacy licensing systems to the new, integrated CustomerID/PremiseID-based system. An indicator of this success is that the principals at DATCP received awards for business and technology innovation during this period. With the final year of the project bringing closure to the licensing component of the project, two other deliverables became the project emphasis.

In the last six months of the project, DATCP moved to implement the mobile inspection and online licensing components of the projects. At the end of the project both components had been implement in limited fashion with substantial potential for further development. During the period of June through October 2005, the grant applicant also partnered with the University of Wisconsin – Milwaukee to complete a final evaluation of the grant activity.

Key Grant Participants

- Ms. Dorothy Harvey; current project manager for licensing activities, and end-of-project grant coordinator

- Ms. Sherry Schultz; previous grant coordinator and project leader
- Ms. Nancy Capper; original grant applicant and author
- Ms. Judy Heil; Bureau Director for DATCP Information Services
- Mr. John Bruette; data administrator for DATCP licensing activities

Grant Collaborative Environment

The DATCP grant's target population is diverse. Participating the deployment of the technology related to the grant are four key populations: those inside the Information Technology organization within DATCP, a core group of "data stewards" and key business people from the programs served by the licenses, the vendor supplying the underlying licensing and access technology, and the external population of licensees and regulated entities.

This collaborative environment proved to be the source of both complexity and success. Because such a diverse population was involved in the delivery of the technology, planning and implementation was often made more complex by technology and policy conflicts within the DATCP organization. DATCP's underlying IT organization is relatively small for a regulatory agency with more than 250 people.

A key part of the collaborative environment was the relationship between the vendor of the underlying licensing technology and the primary DATCP project staff. As will be seen later in this document, the initial relationship between DATCP and the vendor was a very traditional supplier/consumer affiliation. In time, both the vendor and the DATCP came to see the relationship as a partnership -- working far more closely together than in typical IT-related contractual arrangements. The emergence of this relationship is an important component of the success of the project.

That such a relationship would emerge is the result of the understaffing within DATCP's IT staff. In order to complete the project tasks (see above) in a timeframe that met both the management and grant requirements, DATCP turned to the vendor for additional project-related help. That resulted in a fortuitous arrangement where a vendor project specialist was dedicated to the project. The ability to leverage this relationship meant that DATCP could focus the project specialist's work on key activities that were in support of the grant.

At the end of the grant period, this collaboration was also one of the more controversial parts of the collaborative environment. In a survey of DATCP IT participants, 75% (χ^2 indicating a significant difference between the two groups) respondents suggested that technology transfer from this collaborative relationship was the most pressing issue at the end of the grant period.

Grant Evaluation Methodology

The evaluation team for the TOP grant was contracted in May 2004. This is significantly later than usual in the grant process for most TOP awards. The grant team, in cooperation with NTIA's TOP coordinator and key DATCP participants agreed on a plan that included a brief, interim evaluation for existing grant activities and a comprehensive final evaluation.

Interim Evaluation – Data Collection Methodology

The interim evaluation was based on a set of indicators derived from the grant's desired results. With little time for the production, delivery and collection of a survey, the grant team decided on a course of interviews with key participants and stakeholders in the DATCP grant activity. A standard data collection instrument was used to guide the interviews and ensure that each interview covered the same material. The notes from these interviews were then collected and aggregated. At no time during this process was personally identifiable information collected. Twenty-one interviews were completed, each ranging from 30 to 75 minutes in length.

In addition to the standard interviews, the grant evaluation team participated in design and staff meetings, statistical data collection activities and other discussions which led to both measurable and subjective sources of information about the success of the activity.

Final Evaluation – Data Collection Methodology

The final evaluation was based on the same set of indicators used in the interim evaluation. A more detailed data collection approach was used. The data collection methodology included a formal survey instrument administered in face-to-face data collection settings. In addition, a set of 23 interviews were conducted with participants from each of the grant collaboration groups identified on page five. The 23 interviews were conducted over a period of five weeks in August and September of 2005.

To support the data collection process a significant number of project documents were collected. These were used to build objective analyses of timelines, metrics for effectiveness of license delivery, and metrics for other grant objectives. The evaluation team was a participant in software and technology demonstrations, training sessions and project meetings during the evaluation process. Further data collection and participation in project activities amounted to 67.75 hours in the August/September 2005 time period.

The standards-based, objective data measurement instruments were supplemented in the evaluation by participation in design, planning and policy meetings at DATCP. These sessions led to the development of other data sources for the evaluation of the project.

Barriers/Facilitators for Data Collection

As a first-time successful grant applicant, DATCP had little organizational experience with grant evaluations. Acquisition of an external consultant for evaluation came very late in the project and the interim evaluation was conducted almost immediately after a contract was finalized for the activity.

This inexperience with the requirements of large scale grants was combined with a project implementation approach that emphasized the speed of delivery of the project milestones. The IT staff within DATCP was routinely under pressure to complete the transition of legacy license systems to the new integrated systems. This priority was ranked very high compared to the development of project metrics that would indicate objective progress toward the grant's stated goals.

While DATCP was firmly focused on project deliverables and not the collection on concrete metrics that supported analysis of that work, DATCP staff – and the collaborative group – was unusually helpful and constructive during the evaluation period. The professionalism of DATCP staff, vendor consultants, and DATCP user population was a key part of the success of data collection for the evaluation. In particular, their ability to return to work already completed and provide measurable indicators for progress was particularly appreciated by the evaluation team.

Grant Evaluation

Programmatic Objectives

The DATCP grant was build around a series of nine major project tasks. As we have seen earlier these nine major areas of activity can be broken into three major areas of activity:

- acquisition and implementation of the platform needed to support the IIS;
- development of – and conversion to -- a common data model for DATCP information; and,
- implementation of an integrated mobile inspection platform.

Programmatic Objective Definitions -- Platform

The acquisition and implementation of the platform needed to support the IIS envisioned by the grant is the earliest work of the grant activity. In the first six months of the grant activity, the DATCP IT team developed a set of specifications for a new hardware/software/network environment that would support a completely new IIS. As part of that effort, specifications were built for the

database that would act as the foundation for the new licensing system. This activity included the administrative activities associated with procurement.

Programmatic Objective Definitions – Common Data Model

The most significant amount of activity associated with the grant came with the development of – and conversion to – a common data model for DATCP information. This was especially the case for the work that moved DATCP to a common CustomerID/PremiseID system. Most significant in this effort was the move from an antiquated database system in support of licensing to a new environment that would support licensing under the common data model. The conversion of the licensing systems involved the business process re-engineering of more than forty different license areas within DATCP. Once complete, DATCP achieved a common Customer/Premise identification model that supported many of the grant's original objectives.

Programmatic Objective Definitions – Mobile Inspection

In the last six months of the grant DATCP moved to combine the advantages of the common data model with the ability to provide inspectors with a realtime mobile inspection tool. This work included the formalization of inspection régimes for program areas where agricultural inspection was not widely standardized.

The Legacy Environment

Initial Environment – Project Initiation

At the beginning of the project, DATCP found itself in the unpleasant situation of having numerous platforms for licensing and reporting. It was impractical to effectively relate regulatory, contact or inspection information across DATCP license types or regulatory program boundaries. This resulted in "silos" of information repositories, where collected data was only available to staff in a particular program. This failure to have a mechanism for integration of data is a key weakness in situations where biological or terror threats require an integrated understanding of the sources of agricultural materials and resources.

A typical example of the predicament related to DATCP's legacy systems was the management of customer or regulated entity contact information. It was not unusual to find that the same site or customer would appear in a variety of legacy licensing systems. If a licensee were proactive, and attempted to correct contact or regulatory information, the information might only be corrected in a single application. Without sharing information across program boundaries, DATCP staff was unable to correct the information in all of its license applications.

On the face of it, this seems to be only an administrative problem. However, program participants from many divisions inside of DATCP relayed stories of how poor data could affect inspection and surveillance of agricultural sites.

A typical story involved two inspections of the same site. As the first inspection proceeds, compliance issues at the site may be identified. When the first inspector leaves, he may not know that another inspection – for a different agricultural activity – may be scheduled in the very near future. When the second inspector appears he has no way of knowing the results of the earlier inspection. Having the data contained in "silos" – individual program record keeping functions – makes it impossible to share.

Another difficulty in the "silo" approach to record keeping is the difficulty of data management. Because each program had its own platform for managing license information, each program felt compelled to manage its data using rules of its own. Many sites are required to get multiple licenses or permits from DATCP. With the "silo" approach, entry of common information was inconsistent. As an example, there are an enormous number of ways to abbreviate the entity known as the "Professional Dairy Producers of Wisconsin." As a result of inconsistent data collection, DATCP staff could not even do simple queries over program boundaries.

Initial Environment -- Legacy Platforms

Prior to the IIS effort, the most common platform for storing information about DATCP licensees was called NOMAD. NOMAD is a licensing database running on elderly Digital VAX/VMS systems at DATCP. Because of both technical and administrative reasons, NOMAD was not a candidate to support information integration. Instead, DATCP project leaders made an early commitment to replacing both the elderly hardware platform and the database management system which ran on it.

DATCP also found itself with a relatively small number of other platforms on which licensing and inspections systems were built. Notably, some programs had previously decided to meet their own regulatory requirements by outsourcing the development of small applications systems. Often these systems made no use of DATCP's NOMAD database systems. External developers typically used single-user database tools to meet specific regulatory requirements. In several cases, programs advocated for these systems because they could be quickly modified to meet the changing needs of the organization.

The result of meeting these specific needs with small, local applications was that the data was isolated. Once again, cross-program reporting or data management was simply impossible. Several interviewees described a crucial symptom of the failure to have an integrated data system:

> *"Imagine a circumstance where the agency sends an inspector to a site that is known to not be in compliance. The inspector may have to deliver unpleasant news to the owner or operator of the*

site. It may even happen that the owner or operator of the site becomes belligerent or hostile with the inspector. The crucial problem is this: once the inspection is completed, who knows that the site owner or operator is aggravated with DATCP and its professional inspection team? Only the inspector that was at that site – for a particular type of program inspection – would know that.

Imagine if, in the next few days, another program has scheduled an inspection of the same site for a different reason. Under the current system the second DATCP inspector has no knowledge or forewarning of the situation resulting from the first inspection.

There are really two problems here: first, the safety of the inspector can be compromised in those cases where they do not know that a previous inspection caused an owner or operator to be potentially hostile. Perhaps just as important is that the second inspector does not get the benefit of the knowledge and intelligence gained during the first inspection. That information might lead the second inspector to take the first inspection into account and change the parameters of the second."

One important component of the data integration issue on the legacy platform is reporting. Those programs which enter data into isolated systems tend to build reports that are specific to that program's needs. That is a natural outgrowth of customizing the reporting (and licensing) for the needs of a specific program area.

However, having specialized reports that were specific to individual programs meant that there was an enormous library of reports with inconsistent layouts, naming and presentation. Once again, when programs needed to establish consistency of data, they found it difficult because of the reporting. In particular the ability of the agency to respond to specialized, cross-program requests was greatly reduced by the "silo" approach to data collection: it was simply impossible to build reports from data stored in a variety of databases on a variety of platforms. In the event of biological or terror crisis, the ability to use the "silo" systems for quick reporting was non-existent.

The impact of the isolated data collection systems was also felt in the regulatory environment. When legislation or regulatory activity was proposed for dairy, farm or other agricultural activities, it proved to be very difficult to get information about the affected community when the area of interest crossed

program boundaries in DATCP. As a result, responsiveness to legislators and regulatory staff was low when questions emerged that required data analysis across divisional boundaries in DATCP.

Initial Environment – Support for Mobility

The NOMAD environment was an appropriate choice for its requirements when the system was initially built. However, its dependence on a particular hardware environment and underlying networking protocols made it a poor choice for contemporary applications support.

In particular, the NOMAD and VAX/VMS environment was a particularly poor choice for the support of mobile clients and web integration. Since support for TCP/IP in the VMS environment was not the default choice, network administrators would have to shoehorn the NOMAD database environment into the World Wide Web. In addition, there were no provisions for mobility or nomadicity in the legacy VAX/VMS environment.

Even if the legacy environment could have been used for the Integrated Information System, it would have failed in providing a foundation for some of the key objectives of the grant.

Achieving Programmatic Goals

DATCP identified nine programmatic goals for the grant (see page five). In interviews with project participants – and through standard survey instruments -- we sought to identify the progress made on reaching these goals, any crucial success stories associated with the goals, and what barriers were discovered to the attainment of these objectives.

Acquisition and Implementation of the Platform Needed to Support the IIS

As we have seen, in order to build an integrated data system for DATCP, some basic hardware and software goals needed to be met. DATCP, early in the period of grant activity, moved to provide a new platform for integrated licensing, inspection and reporting requirements.

Selection of this platform represented an opportunity for DATCP to move away from the legacy hardware and networking platforms in use by the agency for many years. While the legacy VAX/VMS systems had been serviceable throughout their lifetime, the current situation was untenable. The elderly hardware and networking systems were a problem because they were difficult to update, support and upgrade. These old systems were not a candidate for supporting the new IIS – in fact, the grant activity represented an opportunity to move the entire agency's activities toward a more modern, more flexible, and more responsive IT environment.

In December of 2002 DATCP's IT group prepared specifications for an application and database server on which the new IIS would be run. With the specifications in hand, DATCP moved quickly to purchase and deploy the server. By March of 2003, DATCP had installed and configured the server. Within a month, the server was available on DATCP's network and appropriate security and network access controls were put into place.

The quick acquisition and implementation of the application server points to a lesson learned early in the grant activity: **fundamental hardware and networking implementation issues are a proportionally small part of the overall task of integrating data collection, management and reporting tools.** In DATCP's case the programmatic goals involving hardware and networking support for the IIS were met easily and early in the project.

In the same period, DATCP moved to create the specification for the third party vendor software package for the issuance of governmental licenses. The database that comes with the licensing software is the basis for the new Department database. Fundamentally, this combination of licensing software and underlying database acts as the foundation for integrated licensing, reporting and inspection activities.

DATCP acquired and installed this foundation in a series of steps:

- Preparing a Request for Bids (RFB) as a mechanism for acquiring the software (October 2002);
- Evaluating the responses to the RFB and selecting the winning vendor (December 2002);
- Procurement of the licensing software (January 2003);
- Installation of the base licensing software on the application server (March 2003); and,
- Customization of the licensing software to meet DATCP's integrated information requirements.

While the selection and acquisition of the "foundation" went smoothly for DATCP, it led to the part of the project that proved to be significantly more complex.

Development/Conversion for Common Data Model

The second group of the programmatic goals for the project lies at the heart of the strategy for developing an integrated approach to agricultural information. Once the "foundation" was in place, DATCP moved to develop a department-wide, customer/premise-ID based data model for agricultural information.

A data model is a generalized, user-defined view of the data stored and manipulated by computer programs. In relational databases, data models are built from a series of tables. Within a table, information is stored in homogeneous

columns, e.g., a column named license_date would contain information only of type date. Usually, the data model provides a formal method for arranging data to mimic the behavior of the real world entities they represent. Fully developed data models describe data types, integrity rules for the data types, and the operations and structures that can be invoked to handle data.

The data model was crucial for DATCP because it represented a common, integrated view of departmental activities and programs that had previously only existed in isolation.

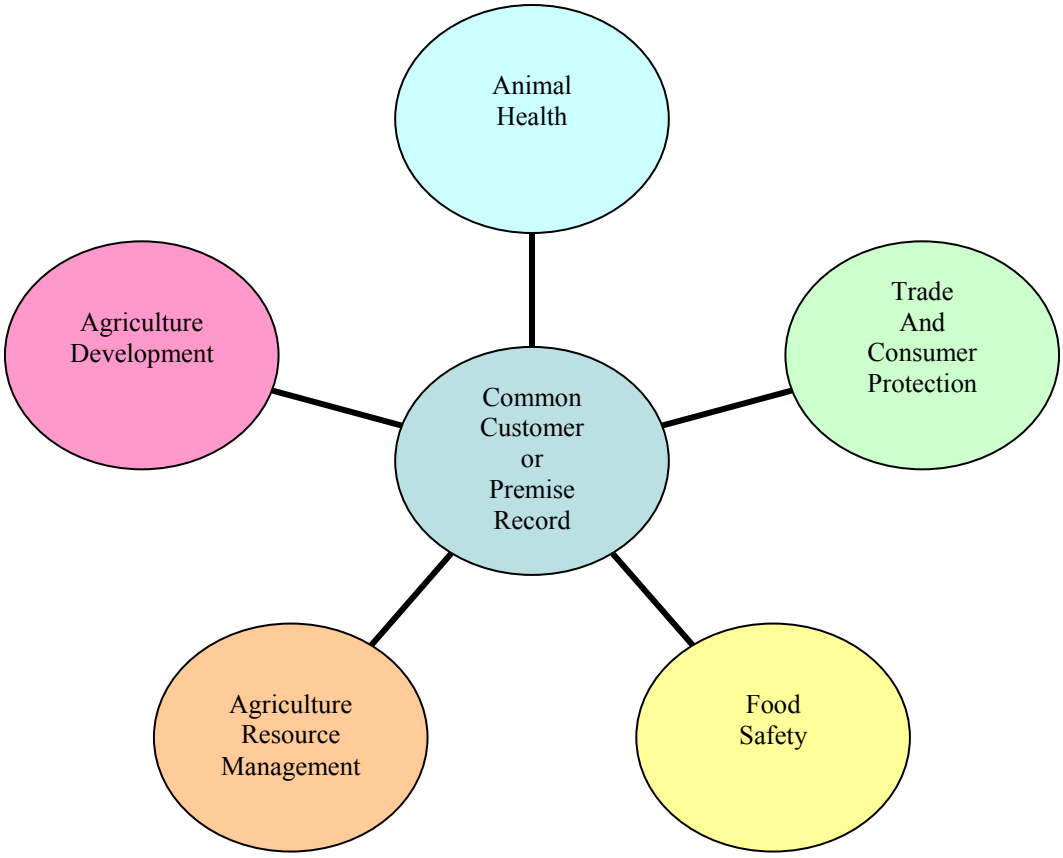
To achieve the goal of having a workable and effective department-wide data model, DATCP created a cross-program, database design team. This design team was initially responsible for collecting the requirements for the integrated customer/premise ID data model. Once the requirements were enumerated, the team was then responsible for designing a data model that met the needs of more than 120 different licensing programs in the department. After internal review, the team then sought final approval for the model -- and buy-in from all divisions participating in the project.

It is important to not underestimate the scope of difficulty in building this data model. Previously "unrelated" systems needed to be brought under a common software umbrella. The "glue" that made this possible was the creation of a single, unique record for every operation or entity regulated by DATCP. This single customer record holds common information for each entity regardless of how many relationships the business has with DATCP.

With this department-wide data model in place, DATCP proceeded to implement the system by:

- Converting legacy data to the department-wide database;
- Moving licensing systems and procedures into the new system; and,
- Coordinating and managing source information for the single customer record.

DATCP naturally divided the work of this conversion activity into organizational units:



For each organizational unit, the implementers further subdivided the activity into "folders" that represented specific license types. Dividing the work into these "folders" allowed DATCP convert the legacy licensing and inspection systems into two components:

- The parts which were source material for common customer/premise-ID information; and,
- The parts which were specific to the needs of a particular license type.

Each "folder" represented a unit of conversion activity. For each "folder" a business fit activity was completed and a relationship built between the technical staff coordinating the customization of the licensing software and the staff member who understood the business area best (a "Business Area Expert"). **An important lesson from this part of the conversion is the importance of the relationship between the person implementing the technical solution and the person representing the business need. The quality of this relationship often proves to be a measure of the success of the conversion to the new system.**

DATCP spent significant time and effort in ensuring that the data for the common, premise/customer ID was as accurate as possible. This task, so crucial

to the idea of integration, was initially supported by separate staff so that those working on conversion of individual "folders" would not be faced with significant amounts of data "cleansing" for common information.

One of the key measures of the success of this conversion to a common, customer/premise ID model is the reduction in number of duplicate names in the databases. In June of 2004, the number of names for typical licensee names was compared in the old system and the newly integrated model:

	Name Records in the Legacy System - NOMAD	***Name Records in the Integrated System - AMANDA***
Names with the letters "PIC" in them	195	12
Names with the letters "KWIK" in them	271	201
Names with the letters "Wal M" in them	84	9
Names with the letters "WalM" in them	30	0
Names with the letters "Wal-M" in them	145	9
Names with the letters "Shopko" in them	117	69

The transition to a new data model also allowed DATCP to distinguish between organizations/premises and individual people. Records relating to individual people could indicate their role in the organization (e.g. were they an applicant? Were they a contact?). For both types of records, DATCP discovered that there was a significant difference between "bad" data and a lack of standards in naming. **DATCP found that the conversion from the older record keeping systems exposed ongoing problems with standardization.** Solving the problem of standardization led to decreases in the numbers of inaccurate or duplicate records in the new, integrated system.

Phased Implementation

DATCP was faced with an important choice in implementation. One possibility was to complete the implementation in a single step. Sometimes called the "Big Leap" strategy – this would have required a conversion of all licensing systems at a single coordinated time. Many units of government are tempted to try this approach – ensuring that the conversion is not a long, drawn-out affair, but a single event that needs to be planned for and executed.

DATCP decided not to take the "Big Leap" approach. In fact, DATCP was not in position to attempt it because the agency was missing some key ingredients that would have made it possible:

- DATCP had a significant shortage of technical IT staff available for the project – in particular, DATCP had very few programmers who were skilled with MS-SQL or the underlying tools that support the Amanda toolkit;
- DATCP did not have the funds to support the additional resources that would have been required to implement using a "Big Leap" strategy;
- The end-user community would not have had any support resources if all of DATCP's IT staff were dedicated to the execution of a "Big Leap" strategy;
- Within the user community the coordination and training of business experts to effectively do the business process redesign for licensing were unavailable; and,
- The user community wanted to have a implementation strategy where some track record of success was established. There was a clear reluctance for several business units to move to the new system without some experience being in place.

DATCP decided that the project should be broken down into groups. As we have seen, a team leader for each division was established within the Information Technology unit. A "Data Steward" was appointed within each division to act as liaison and business unit representative. The work of doing the conversion was broken down by licenses in divisions.

The Data Steward role included defining system frameworks and rule, providing feedback for improvement during future conversions, prioritization of work within each division and leveraging existing experience to solve problems in other parts of the division.

Within each of these areas, an assessment was done of the readiness of the business unit for conversion, the complexity of the license business process and the urgency of the conversion. Renewal cycles were evaluated so that no conversion adversely affected a current business process.

Implementation Strategy

DATCP decided to start with a licensing pilot that would act as an internal proof of concept. The idea behind this strategy was to show the DATCP constituency that there was an effective solution for Customer and Premise ID in hand and that the conversion to the new platform would work. A key objective of the licensing pilot was to obtain internal support from those who would be the users of the new systems and DATCP management.

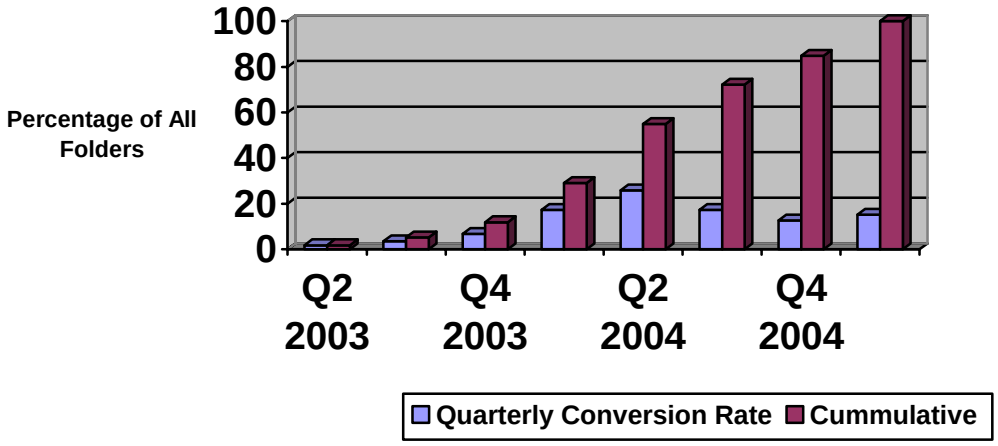
A significant component of the implementation strategy was to train staff. This included training technical IT staff in the MS-SQL and AMANDA skills needed to implement the new license system replacement. It also included training for those who would eventually be the customers of the IT staff: the end-users of the licensing systems.

DATCP used multiple approaches to doing this training. Some of the training was done using traditional classroom curriculum. Other instruction was done in smaller, hands-on sessions.

The move from the legacy system took place in groups. Once the licensing pilot was completed, the strategy was to start with relatively easy licenses where the supporting business process could be well-understood in a short time. The most complex licenses were saved to the end of the project calendar.

At the time of the interim evaluation, the process was about 75% complete. While the first, pilot conversion took about five months to complete, successive folders required less time. Over time DATCP found that there was a significant difference between the effect of license volumes versus the effect of the complexity of the licensing process.

Progress in Folder Conversion



An important lesson learned in this folder conversion strategy was: **leveraging the experience of previous folder conversions meant that it took about the same time to do complex license business fits as it did the early simple ones**. In simple terms, the decision to do a phased approach to the implementation was not just a necessity because of resource limitations; it was also a very successful

approach to ensuring that complex license processes received the benefit of early conversions.

This strategy also had the effect of minimizing risk as the project moved forward:

- The project had many short-term goals and, as a result, the milestones were always clearly in view for those participating in that phase of the project;
- All participants received visible results in short implementation timeframes (sometimes as short as one month);
- The implementation focused on simple conversions first with a high likelihood of success;
- The task of taking on challenges was reduced by progressively moving through the licenses – problems never accumulated or became too difficult to work around;
- The participants in the project had a continuous gain of knowledge and experience as the project moved forward;
- Cumulative and incremental gains in experience allowed project staff to apply knowledge learned in previous conversion efforts to new challenges; and,
- Incremental approaches also allowed for a flow of continuous feedback loop for future improvements.

As each division – and each program in the division – moved its licensing operation away from NOMAD and into AMANDA they discovered that the first year's licensing operation presented a challenge. In almost every case the programs found that the first round of licensing took longer, required greater staff involvement and interaction, and featured more problems than a typical year. Yet, interviews with those business managers closest to the licensing activity indicated that most believed that the switch to an integrated system would result in greater responsiveness and timeliness.

"*What is the impact of the conversion to AMANDA on your customers or regulated licensees*?"	
The change to AMANDA has significantly impacted my customers or licensees. [either negatively or positively]	8%
The change to AMANDA has resulted in a slight negative impact to my customers or licensees.	18%
The change to AMANDA has resulted in a slight positive impact to my customers or licensees.	64%
The change to AMANDA is not visible to my customers or licensees.	10%

DATCP achieved this counterintuitive result through the establishment of a "user group" for new Amanda users, and through the team model that incorporated business area experts in the development of the data model for individual program

areas. In fact, **active business area staff participation in user groups and data model development is a predictor of satisfaction in the converted licensing process.**

Many participants stressed the challenge of data coordination. One typical concern was that the mechanism for ensuring that the facility/premise and individual records were of good quality was a manual process. Many also noted that data-coordination was a department-wide issue. Changes made to a record by one program affected other programs all over the department. The difficulty points out a central concern for the integrated data system: **unlike the older, program-specific systems, an integrated database has records that are not "owned" by any single program. The maintenance and management of those records is vital – yet the process for data coordination of common data remains informal.** Many interviewees exhibited patience with the ongoing process of learning how to do effective coordination of common data.

At the end of the grant period, data stewards were polled about the impact of the new data model on their day-to-day work.

"*How difficult is the new, shared data model to work with compared to the older data model that was specific to your program?*"	
The new data model significantly impacts my work.	6%
The new data model affects my day-to-day work a little bit.	74%
The new data model does not change my day-to-day work at all.	17%
No opinion,	3%

Beyond the result of having a common data model for all the department's data, the conversion of the licensing processes had two other significant impacts:

- the impact on reporting from the newly converted database; and,
- responsiveness in "time-to-license."

All of the program areas which had licensing automation in the past also had routine reports they used to do data management and to respond to programmatic requests for information. Because the source of the data had changed, reports generated from the system needed to be converted as well. The emphasis during the conversion was clearly on the licensing process and not on reporting. This had a dramatic impact at the end of the grant period. While the license process conversion was completed and successful, many end-users were making requests for either new reports from AMANDA or AMANDA-centric versions of reports they previously received from the legacy system. **The focus on completing the licensing conversion led to a perception that reports from AMANDA were not important among the user community.**

The interim evaluation discovered that reporting was a source of discontent for some of the users of the new, integrated databases. One business area expert describes herself as being "in the infancy of reporting, just the beginning stages." The new system empowers users to do their own reports, but not every user felt that this advantage was being exploited. **While some basic training on doing queries and user-centric reports was done, more training is needed for those who are trying to take this responsibility on for themselves.**

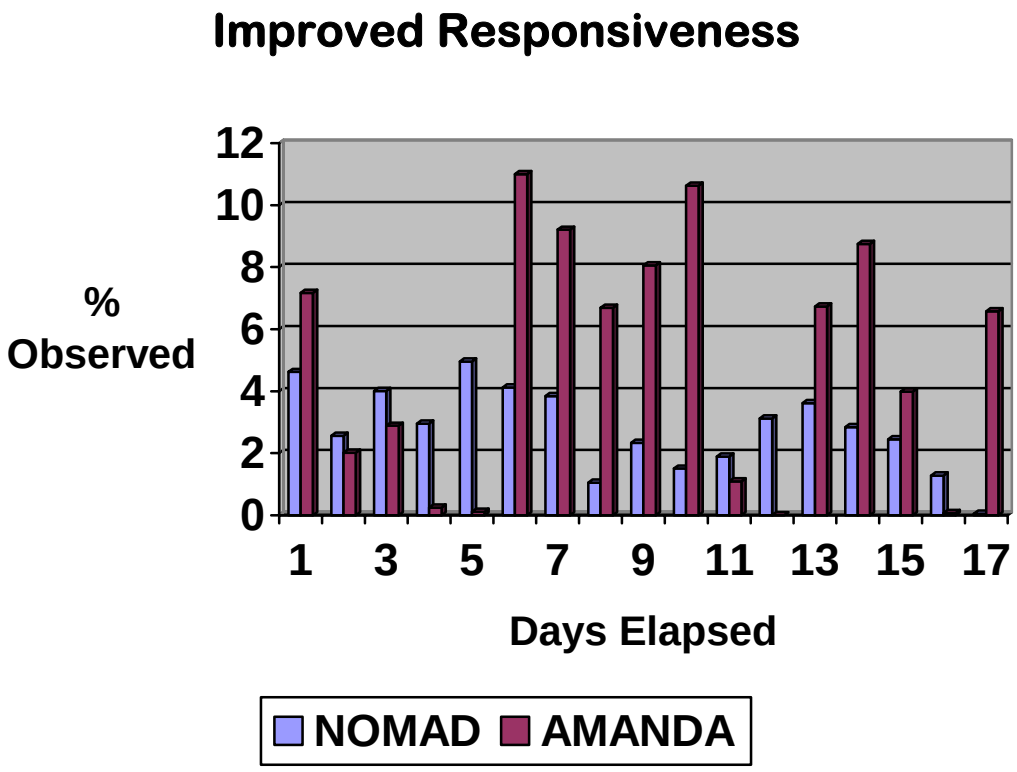
The new system does provide a "report wizard," but several users of the wizard found it to not be flexible enough to meet their program requirements. AMANDA also supports the standard SQL query language, but few business area users knew how to take advantage of it.

Another challenge, related to reporting, is the need for upgrades to the underlying software/database. Upgrades provide the opportunity for new features in the software/database and also deliver fixes to problems that have been previously identified.

In May of 2004 an upgrade to the licensing software generated problems with reports that had previously been working properly. Several business area experts expressed concern that "a reporting process that had been successfully converted might suddenly not work because of software upgrades." On the other hand, technical and programming staff found that the sheer number of reports generated in the old system was overwhelming. Their response was two-fold: first, to ask the program areas to think about which reports were crucial and prioritize the conversions; and second, to try to provide tools which allowed program areas to build their own reports rather than rely on technical staff. **While licensing process conversion is a shared success among program areas, reporting from the new, integrated system is not. There is a disconnect between the perspective of the technical IT staff (whose focus is on the timely conversion of licensing processes) and business area users (who use the systems and database even after licensing processes are completed).**

The conversion of the licensing processes also resulted in a change of responsiveness. One measure of this is the amount of time that elapses between the payment of a license renewal and the time at which a license prints. In simple terms: how quickly can the license be put in the hands of the regulated business once the payment for the renewal has been processed?

As noted earlier, almost every area that went through conversion from the NOMAD system to the new, integrated system experienced understandable delays as they learned how the new system worked. This "working out the kinks" was a feature of every license area surveyed. A welcome result of the increased automation in AMANDA was a significant decrease in the number of days from renewal payment to the time of license printing.



The chart above only shows comparative results for both AMANDA and NOMAD licensing processes (in particular, NOMAD licensing processes often resulted in "time to license print" in excess of 20 days). The median number of days that elapsed under the old system for license renewals was 18 days. The conversion of the licensing process to AMANDA resulted in nearly a week's improvement in responsiveness: the median for AMANDA licensing processes was 10 days.

While the conversion and implementation of licensing systems has been a significant focus for DATCP, the grant activity also includes significant effort in support of inspections. In particular, DATCP is to implement a mobile inspection platform that will be integrated with the department-wide customer/premise ID-based data model. This task will include purchasing mobile computing devices for inspectors and then developing software for those devices that will replace paper inspection forms. The system is intended to include a GIS component so that inspection platforms and the customer/premise data share common geo-locator data.

Post Conversion Implementations

Near the end of the grant cycle, DATCP successfully completed its conversion from the legacy systems to the AMANDA-based implementations. With less than a year remaining in the grant period, DATCP was face with new initiatives and the need to make progress on some other strategic goals.

The two central activities related to the grant that followed the conversion of the licensing applications were the implementation of mobile inspection facilities and support for online access to the IIS. A clear outcome of the grant was that a significant portion of the time and resources for the project were devoted to the transition from the legacy system to the new IIS. This left DATCP in a position where it didn't have the time and resources to provide the same focused effort on the two post conversion initiatives.

In addition, in the period of the grant new initiatives and regulatory requirements further diffused the resources needed to complete the grant objectives.

Mobile Inspection Objectives

At the interim evaluation a decision was being made about the platform on which to support mobile inspection tools. In addition, no decision had yet been made on what software to use for the inspection activity. In December 2004, DATCP decided upon a Tablet PC platform as being more functional than a PDA-style implementation. The key criteria for the decision included reliability, the ability to successfully integrate with the underlying AMANDA software, and the preferences of the inspectors in the field.

Once the Tablet PC platform had been chosen, the vendor for the AMANDA platform provided a beta version of the AMANDA product for mobile application. As a beta version, DATCP noticed an immediate deficiency: there was no history data available to the inspector in the field. By not carrying along history information, there was no support for the inspector – DATCP considered this to be a critical and essential function of the software.

The vendor of the software then considered whether or not to add this feature to the underlying database and user interface. The passage of a couple of months led to a decision by the vendor that the underlying architecture for support of the mobile product would be redesigned. The result was a new release of the product in March of 2005. Effectively, DATCP acted as a beta test site for the product. When DATCP asked for changes to the product, the vendor went through an evaluation cycle that sometimes led to the incorporation of those changes – other times not. In either case, time passed while decisions about software support were made.

At the same time, DATCP moved to re-engineer the inspection process. Some programs had no inspection forms at all; some had single slips of paper that recorded the details of the inspections. In no case were the inspection results captured in AMANDA. For those inspections without forms, the process and form information had to be created from scratch.

To further complicate the inspection automation, application developers were being asked to do the installation and configuration of systems rather than technical support.

At the time of the final evaluation two devices for mobile inspection were in production with more devices ready to be placed into service. With a small population of field implementations, the overall effectiveness of the mobile inspection component is not clear. The AMANDA mobile product has both great promise and clear challenges.

Online Integration

Another component of the post-conversion activities was an implementation of online services in support of licensing activities. In particular, DATCP attempted to make possible online updates of registration information and even renewal of specific licenses.

This was a particularly complex part of the project because it involved coordination between other governmental agencies, financial institutions, and the developer of the underlying software. To ease the transition DATCP choose eight licenses from the food safety area to make available to the online update initiative. This reflects the same strategy of starting with relatively low risk parts of the application as a means to gather experience and to be able to problem solve on less difficult business processes.

DATCP set an internal goal of receiving 5% of their renewals through the online mechanism. They set a goal of a 3% response rate for other online activities.

In order to connect the new AMANDA IIS to an online server, DATCP required middleware to bring the database online. The vendor supplied a module called eNTerprise as a Enterprise Java Bean module that makes the database connection. IBM's Web Sphere Application Server acted as the glue between the developed web pages and the Java Bean access modules. After a short period of training, a difficultly the developers faced was that the documentation for the Java Bean components and the underlying API was not complete.

Because the online integration strategy included not only a data integrity component (the ability for facilities and customers to update their information in a single place for all AMANDA IIS databases), but also a renewal component, DATCP was forced to accept payments for the renewals online. The ease-of-use and ubiquity of credit cards made them a natural choice for renewal payment. On the other hand, DATCP needed to establish, for the first time, a relationship with a merchant bank for credit card clearing and payment processing.

This was further complicated by a administrative requirement to do the payment processing through a proxy server run by a completely different organization. In fact, the entire web hosting, proxy server and database connectivity engine

architecture was hosted by a regulatory organization outside DATCP's control. During the initial ramp-up of the online implementation substantial energy was focused on building the relationships needed to bridge the gaps between DATCP, the merchant bank, and the operators of the web hosting services.

After the initial coordination was completed, the first set of pages for licensing was completed in about a month. A first attempt at online license renewal was started at the very end of the grant cycle with renewal expirations on October 1 of 2005. It was difficult to get effective metrics for the success of this first implementation for the purposes of grant evaluation. Anecdotal evidence indicates there was significant response to the availability of the online license renewal – even in its first implementation.

The developers of the online renewal system also provided a mechanism for updating registration information for customer data. Since licenses based on Customer identifiers were the easiest to implement, the information for customer data was focused on first. DATCP, in its initial implementations in September of 2005 provided a limited amount of data update capability for end customers. Examples of how the renewal and data update functions work are given later in the evaluation.

The developers of the online components are now moving to put further license renewals online. Because of their characteristics, these "people-based" licenses are easier to code for online renewal. The result will be to have more business process shift from paper-based activities to online renewals. The implementers have learned that the business fit part of the process takes more time than the actual implementation of the web pages and underlying code.

Achieving Strategic Goals

The DATCP grant specifies a series of strategic goals. These goals result from implementation of the Integrated Information System. The nine strategic goals are:

- Making improvements in prevention effectiveness
- Making improvements in responsiveness to agricultural emergencies
- Improving service to customers
- Improving the timeliness of services to customers
- Improving the timeliness of processes
- Improving the quality of information in record keeping systems
- Ensuring optimum interoperability of systems
- Reducing unnecessary redundancy of record keeping systems
- Securing comprehensive information systems, and
- Enhancing responsiveness to requests for information

These strategic goals reflect the diverse activities of DATCP. The underlying IIS protects citizens in areas of health, safety, accident responsiveness, and terror response and abatement. Examples of how the IIS built through the grant supports these goals include these typical DATCP activities:

- The certification of more than 1,300 businesses and 33,000 for dangerous pesticide application and use;
- The monitoring and control of the harvest of more than 500,000 animals and the inspection of more than 40,000 meat plant inspection;
- The evaluation of the food safety of more than 50,000 food establishments;
- The survey of more than 1,000 fields and 32 crop types (including grains, fruits and vegetables) for food safety, pests, insects and diseases;
- The treatment of more than 125,000 acres to halt the spread of gypsy moths – the state's largest effort in this area – and the contact of nearly 200 campgrounds to teach people not to unwittingly give the gypsy moths free transportation to a new location;
- The monitoring of unfair business practices ranging from price gouging at the gas pump to charity scams including the testing of more then 9,000 store checkout scanners;
- The testing of tens of thousands of food samples ranging from milk and cheese to deli salads to bottled water – the DATCP performed more than 100 tests a week for Salmonella in ground beef and tested every product in every grade A dairy eight times in the year.

The final evaluation examined the strategic goals in light of the activities that the IIS was now able to support. The evaluators quantified each of these outcomes and pursued data which would show progress in meeting these strategic goals. The interim evaluation did not attempt to collect quantitative data for the first eighteen months of the grant period. This was changed for the final evaluation as we have seen in previous sections..

What follows is a description of observed results in each of the strategic areas of activity.

Evaluation of Strategic Goals

How successful was the project at identifying, acquiring and implementing an environment needed to support the DATCP IIS?

"*How successful was the project at identifying, acquiring and implementing an environment to support the DATCP IIS?*"	
Extremely successful	42%
Successful	38%
Neutral or no opinion	14%
Not fully successful	3%
The project did not succeed at this goal	3%

Those who answered "not fully successful" or "the project did not succeed at this goal" were asked to qualify their comments. In each case the hardware selected at the deployment platform for mobile inspections was cited as the cause of their negative answer.

This result indicates that the work of building the infrastructure for the project was a success in the eyes of the implementers, direct users and those who are potential customers of the system.

How successful was the project in establishing collaborative relationships needed to support the DATCP IIS?

"*How successful was the project in establishing collaborative relationships needed to support the DATCP IIS?*"	
Extremely successful	22%
Successful	18%
Neutral or no opinion	42%
Not fully successful	15%
The project did not succeed at this goal	3%

The respondents to this question indicated that the project was generally successful at building or establishing collaborative relationship needed to support the DATCP IIS. Those who answered "not fully successful" or "the project did not succeed at this goal" were asked to qualify their comments. In this case, 70% of those responding said that collaborative relationships were already in place to support new initiatives. 40% replied that collaborative relationships were not necessary to successful conclusion of the grant activity. 21% indicated that collaborative relationships failed to be built.

How successful was the project in establishing collaborative relationships with other participants in DATCP and outside DATCP?

"*How successful was the project in establishing collaborative relationships with other participants in DATCP and outside DATCP?*"	
Extremely successful	8%
Successful	39%
Neutral or no opinion	36%
Not fully successful	14%
The project did not succeed at this goal	3%

Respondents indicated a lesser degree of satisfaction with the establishment of partnerships outside of DATCP. As part of the project, DATCP has established partnerships with external organizations such as The Wisconsin Veterinary Association, the Wisconsin Fertilizer and Chemical Association, the Wisconsin Agri-Service Association and the Wisconsin Farm Bureau Federation.

In following up with those who answered "not fully successful" or "the project did not succeed at this goal" 75% were unaware that these partnerships had been established.

Improvements in Prevention Effectiveness

The crucial operational activity that ensures prevention effectiveness is routine and regular inspection of agricultural sources and distribution networks. As we have seen, DATCP does extensive food safety, dairy and other inspections as part of its regulatory responsibility.

At the end of the grant cycle, DATCP turned to the selection and deployment of platforms for mobile inspection. The strategy adopted was to use tablet PCs as the mobile platform for inspections. The mobile devices would be loaded with an application that partnered with the Enterprise IIS. Inspectors would be able to see "to-do" lists, scheduled inspections, and all the data associated with premises and customers associated with those inspections.

In order to support this, the implementers did two separate tasks: building the interface between the Enterprise AMANDA systems and then completing the business fit for the inspection program.

The interface between the Enterprise AMANDA systems relies on a partner product to the core AMANDA database. Installed on the tablet PCs is an application, called AMANDA mobile, that provides for synchronization of the data at the mobile device that that on the master server. The work on the mobile component of the IIS came very late in the grant period. Only two devices were in operation at the time of the final evaluation. Despite this, the implementers had some clear, preliminary observations about the state of support for mobile

inspections. The beta version of the mobile toolkit had no history information available in it, making it particularly useless to the inspection activity. A new release of the product was made available in March of 2005. As new features were needed in the application software, the vendor went through a product cycle to decide whether to implement, complete productization, and then deliver the new version. This led to a significant loss of time as the end of the grant cycle approached.

Assessment of the effectiveness of the mobile inspection platform is not yet possible. Almost all participants agreed that the common, integrated database – combined with the mobile inspection platform -- would make improvements in prevention effectiveness inevitable. All participants surveyed agreed that it was too early in the implementation to see those improvements in quantitative terms.

However, the mobile inspection platform was not the only post-renewal initiative carried out by DATCP. The new IIS acted as the foundation for another important initiative in prevention effectiveness.

Prevention Effectiveness – IIS/AMANDA and Johne's Disease

An excellent example of integration of prevention programs with the DATCP IIS is DATCP's response to Johne's disease. Johne's disease (pronounced YO-neez), or paratuberculosis, is an intestinal infection in cattle and other ruminants. Herds may be infected unexpectedly and without obvious immediate symptoms, cutting into production.

Estimates indicate that in Wisconsin's dairy cattle industry alone, the disease is costing an estimated $54 million annually in reduced milk production and decreased weight. Dairy farmers with infected herds may be losing as much as $235 a year for every animal in their herds.

Wisconsin has built an innovative program of voluntary heard classification and this system is unique in the United States in that it uses an online system to manage the reporting and coordination of the program. The voluntary program provides a system of testing and classification of herds according to level of Johne's disease infection. Herds that are not tested are automatically classified as "maximum risk." The program is available only for Wisconsin's cattle and goat producers.

While the program is voluntary for Wisconsin's herds there are advantages to testing: Healthy herds are better for the state and for individual farms. Healthy herds are not only an economic advantage for the individual cattle producer but are also a mechanism for providing information about the state of the current herd. When producers sell an animal as a replacement animal (not feeder or slaughter animals), they need to disclose in writing if it comes from an untested, therefore maximum-risk, herd.

The program in Wisconsin is an outstanding example of cooperation between various players and levels of regulatory entities. The Department of Agriculture, Trade and Consumer Protection makes funding available to encourage producers to develop herd plans to prevent or manage Johne's disease. There are several types of payments. To encourage producers to participate, they may qualify for any of these:

- Veterinarians who complete an online certification course and get certified to do risk assessments and herd plans can receive $250 per completed assessment/plan. The department pays this amount directly to the veterinarian from a grant provided by the U.S. Department of Agriculture.
- Up to $150 toward costs for testing done as part of the herd management plan developed by a certified veterinarian. This is paid to the veterinarian, who credits the producer's bill for the testing. This is available regardless of whether the testing is done to officially classify the herd
- Reimbursement for laboratory fees if cattle producers do official testing for the Johne's disease herd classification program. In recent years, there has been $250,000 available. The producer applies for this payment and receives it directly.

The integration of AMANDA is evident in a series of folders provided for the Johne's disease programs. A testing folder supports the certification activity and the link to the national program. This folder not only captures a link between DATCP and the State Lab of Hygiene but also the link to the Federal program. A vaccination folder captures information about the calves that are vaccinated.

The partnership between the State Lab of Hygiene, the state's veterinarians and the DATCP leads to a cooperative setting where a clear danger can be understood and managed. AMANDA acts as the repository for the reporting information generated by the Johne's disease program. This makes it possible to do reporting needed by state administrators and also create the reports needed by federal agencies tracking the current state of the disease.

Improvements in Emergency Response

DATCP, prior to the grant activity, had established a standard for emergency response which required investigation teams to be in place within 48 hours of a reported incident. At both the interim evaluation and in the final evaluation, it was discovered that the Department was meeting this standard 100% of the time.

Once the AMANDA system was put into place, the Department began administrative discussions to change this standard to either 12 hours or 24 hours. While the new standard for emergency response was not put into place prior to the conclusion of the grant activity, anecdotal evidence indicates that DATCP never uses a full 48 hours in emergency response. During interviews, inspectors pointed

to the fact that the increased accuracy of the information in AMANDA would lead to two improvements in emergency response:

- Accurate geo-location information which would prevent first responders from not being able to find or track the location of an emergency; and,
- Improved coordination during responses. Since the AMANDA system provides an integrated view of premises and contacts, first responders are able to find out all information of importance regarding a premise or location of an emergency.

Participants noted that the GIS coordinate valued in the new database were more accurate than in previous record keeping systems. A survey found that the accuracy rate (a measure of real versus recorded GIS locator information) was greater than 90% under the new system: a 35% improvement over the previous address location systems.

Improved Customer Service

Two key metrics were studied to try to determine if improvements in customer service took place as a direct result of the grant activity. First, the improvements in staff responsiveness to agricultural constituents were measured. Second, the improvements in direct delivery of service were investigated. In both cases, DATCP has shown measurable improvements in customer service that are direct results of the grant implementation.

In a subsequent section we will examine the improvement in timeliness of the licensing process. One corollary to this improvement is that staff response to questions and business issues during license renewal processing was improved by more than 20% (measured in the number of inbound calls for support processed by license staff). Participants reported a little change in satisfaction amongst the population served by the license system. However, that same population found that program staff was able to respond more quickly and accurately to questions related to the PremiseID and customer components of the database.

The practical impact of this has both short-term and long-term outcomes. In the short term, the potential for dramatic negative impacts from the redevelopment of a mature licensing system were avoided. DATCP successfully mitigated the problems associated with moving agricultural constituents to a new and unfamiliar licensing renewal system. This was accomplished through a combination of outreach prior to licensing renewal periods and intensified constituent support during the renewal period. The period of initial uncertainty that accompanies the introduction of any new system was remarkably short for many of the license areas. Many program managers reported that, once the initial run of license renewals was completed, customers were acclimated to the new licenses and appreciated any change in the ongoing level of service they were provided.

The long-term impact is difficult to measure but easier to describe. By having a common foundation for all premise, facility and customer identifiers, DATCP is now in a position to provide enhanced program support outside of the licensing process.

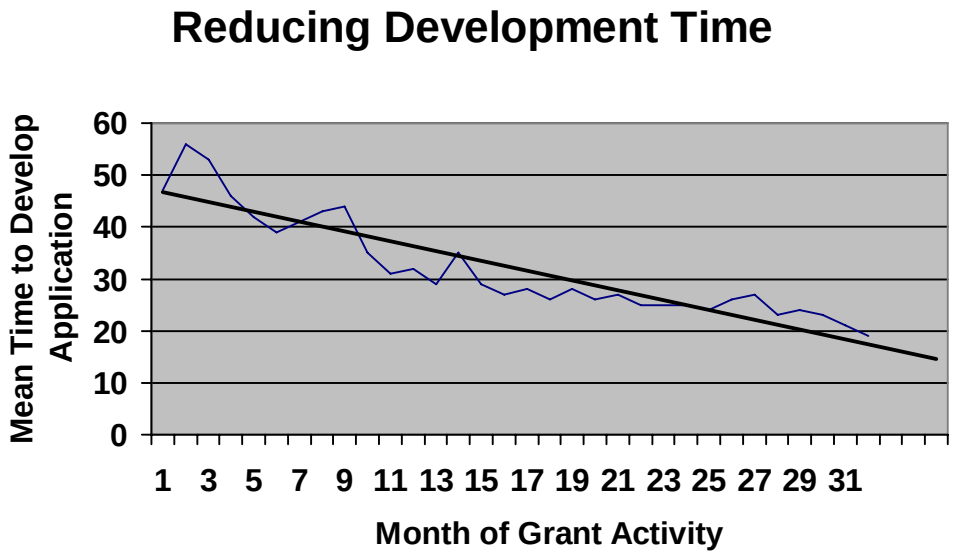
Improved Timeliness

In the period being examined, most licensing processes took longer than similar processes under NOMAD. The reason for this is clear: the first time licensing processes are moved to a new system there are procedural and technical problems that must be solved. Users of the new system were in consensus that, as more renewal processes took place, the amount of time devoted to renewals would be the same or less than in the old system.

Several participants noted that the existence of a comprehensive, integrated customer/premise ID-based system provided the potential for better responsiveness to external requests (for instance from Federal and State sources). However, it was also noted that support for AMANDA's reporting tools would have to improve to meet this strategic goal.

Another component of timely delivery of services is the ability to reduce application development time. As a result of the project all systems developed in DATCP must have a component that collects data on a Customer or a Premise entity. Once this interface is decided upon it takes about 20 to 40 hours to build into code. The IIS then provides the foundation for all of the program's data collection and processing needs. This foundation includes the modules that support data entry and management of core demographic and incident data.

These standard, re-usable modules make it possible to lessen the time it takes to build new agricultural tracking systems. Examining the time needed to develop programs for individual program areas, one can see a dramatic improvement in responsiveness over the period of the grant.



Improved Quality of Information

Perhaps the largest success in the work during the grant period has been the improvement in the quality of information captured in the databases that support the IIS. In no other area has the improvement been so obvious and the impact so great.

As noted earlier in this evaluation DATCP has improved the quality of its contact, premise and regulated entity information. We have already described some of the metrics that support this observation. In staff interviews, the improved quality of information was the most common benefit noted by those working directly with licensing systems. In almost every program area, participants not only noted the improvement in the quality of the information stored by the IIS, but also the impact of the improvement in that quality.

In the first year of conversion, DATCP set aside dedicated staff to assist in the work of conversion. Participants surveyed for the evaluation identified two key benefits to having dedicated staff work on the improvement of the data: first, it freed up program staff to continue working on the larger business and process issues surrounding the conversion; and second, it put data quality assurance in the hands of dedicated staff who were common to all license areas. Aware of data integrity issues in other areas, the dedicated staff was able to leverage lessons learned in early conversions to later, more complex conversions.

The work of re-implementing licensing business models has resulted in enhancements in record management. Most notable of these is the quality of the common contact and premise databases. Searches can now be performed over

premises and contacts that were simply impossible under the previous "silo-based' systems.

During the grant period the temporary employment of the dedicated staff for data integrity came to an end. Many participants regretted this change and a common response during interviews was a suggestion that the data integrity issue was not a focus of ongoing work. One lesson that many participants reported was that **there needs to be an independent, coordinated and dedicated team that focuses on data integrity throughout the lifetime of the IIS. It appears to not be sufficient to ask program participants to coordinate the cross-program data integrity function.**

After the grant period, DATCP will need to formalize the mechanics of data management for the common data. So far, too much relies on informal arrangements between divisions in regard to management of common data.

Optimum Interoperability

DATCP has succeeded in making excellent advances in both technical and information interoperability.

The platform being used for the new, integrated system is extensible and interoperable with a variety of supporting equipment. DATCP's hardware and networking choices ensure that they will be able to scale the environment to meet future growth requirements. In addition, the technical platform is an excellent candidate for interoperability in two other areas:

- Interoperability with web-based solutions for applications and integration of mobile devices;
- Interoperability with other computing environments (notably, the US Department of Agriculture and other agencies in the State of Wisconsin).

DATCP has also succeeded at using its data model to make information portable and usable in a variety of applications. The ability to use ODBC and SQL queries makes the underlying databases for AMANDA interoperable with future applications in DATCP or other organizations with similar missions.

"*How confident are you that the hardware and software used will allow DATCP licensing information and systems to interoperate with partners and other governmental agencies?*"	
Extremely confident	24%
Confident	56%
Neutral or no opinion	9%
Not that confident	9%
I do not believe DATCP systems will be able to interoperate	2%

An important part of the interoperation of DATCP's new system is its ability to work with other regulatory reporting systems. Wisconsin participates in NASS, the USDA National Agricultural Statistics Service. The mission of NASS is to provide timely, accurate, and useful statistics in service to U.S. agriculture. Participating in the factfinding process are thousands of producers and agribusinesses that are the source of NASS reports. This widespread voluntary participation in surveys, supplemented by crop observations and measurements, makes NASS a statistically sound, reliable, and frequently quoted source of agricultural data.

DATCP has built the underlying IIS in such a way that it can directly, electronically submit information to the Wisconsin part of the NASS organization. This means that statistical data need not be entered twice (avoiding the problems of duplicate or incorrect entry).

Redundancy Reduction

In the interim evaluation several examples of elimination of redundancy have been examined. The most powerful example is the elimination of redundancy in premise and contact information on an agency-wide basis. Not only does the common, integrated licensing system eliminate redundancy but it makes possible new applications, searches and tools.

Statistical measurement of the reduction of redundancy is presented in the section on improvement in the Quality of Information. In that section it is noted that the removal of redundant information is an ongoing process, not a one-time activity associated with the conversion of a license. The final evaluation found DATCP moving resources previously used for redundancy reduction to other project activities at the end of the grant period. This has put the onus of redundancy reduction of program staff who have no inherent motivation to add this to their list of daily tasks.

It is also expected that the future implementation of the inspection platform (see the section above on Prevention Effectiveness) will serve to further reduce redundancy through the elimination of duplicate inspection forms and coordination of inspections across program boundaries. It is impossible, given the current early state of the mobile inspection system, to make an independent assessment of how effective this effort will become.

Secure Information Systems

DATCP has taken initial steps to secure its databases, the computers on which those databases reside, and the networks that connect those computers to those people who need to work with them.

Currently, the security for the databases is provided not by the application but by the underlying operating system. DATCP is using Microsoft's Active Directory as a tool to manage user rights and access control for the environment. Currently,

the environment is managed as a single domain. DATCP intends to move to Windows Server 2003 and take advantage of its enhanced security features. Help desk staff reported that there was a marked decrease in the number of security related calls for assistance with the advent of the new IIS. It was also reported that the complexity of those calls had diminished significantly.

Remote access to the databases and systems is provided by Virtual Private Networks. A limited number of controlled connections to the network are allowed through these VPNs.

DATCP has also taken extensive steps to secure the online component of the IIS. The hosting of the DATCP web site is not done by DATCP but by a separate agency charged with the responsibility for integration of information and computing platforms in state government. This web server is appropriately protected and the content that DATCP provides receives a measured and appropriate level of security. The connections to the AMANDA databases are further protected at the network layer.

Commercial transactions are protected by the merchant bank and through the use of proxy servers on networks not physically attached to the network providing access to AMANDA/IIS services.

Enhanced Responsiveness to Requests for Information

Since the interim evaluation there have been opportunities to see how the new system could be used to generate answers or reports for external requests for information. The number of the external requests that have been filled in the last 12 months is not known. Primarily, this is because ad hoc queries to program members are not records as part of DATCP's day-to-day operations. However, surveying those who had to fulfill requests for information from either regulators or policy makers showed that there was progress as a result of installing and converting to the IIS.

"*How confident are you that the new IIS using AMANDA makes it easier to respond to requests from legislators or policy makers?*"	
Extremely confident	46%
Confident	20%
Neutral or no opinion	14%
Not that confident	14%
Not confident at all	6%

A much larger part of the external request for information comes from those people and entities regulated by DATCP. Once again, the number of external queries for information is not known. In this case, there is a significant difference (an optimistic difference) amongst those who replied to the first question those who reported on requests from farmers, food suppliers and others.

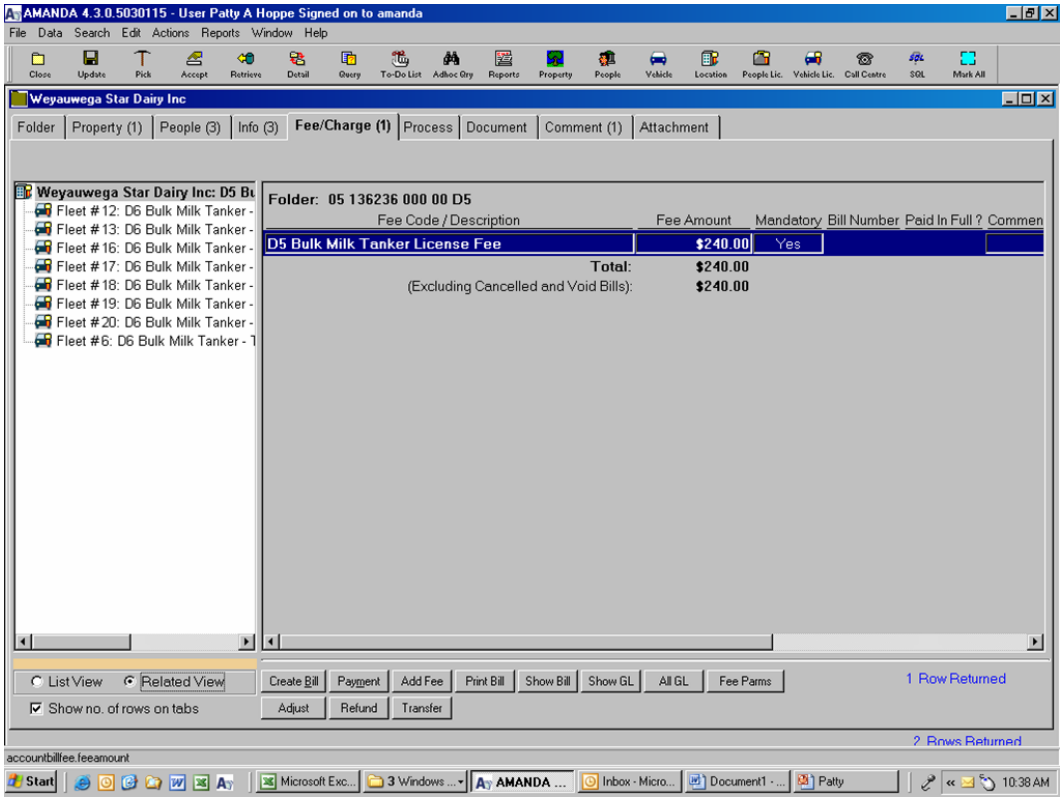
"*How confident are you that the new IIS using AMANDA makes it easier to respond to requests from citizens and regulated members of the agriculture community?*"	
Extremely confident	66%
Confident	20%
Neutral or no opinion	6%
Not that confident	4%
I do not believe DATCP systems will be able to interoperate	4%

Successful Statewide Program Management

An example of the success achieved by the grant applicant is in the administrative and regulatory record keeping of statewide agricultural programs. Every state finds itself in the position of regulating agricultural activity from the "farm to the plate." Not only does this have health implications, but it also provides a linkage to combating terrorist exploits on the food chain.

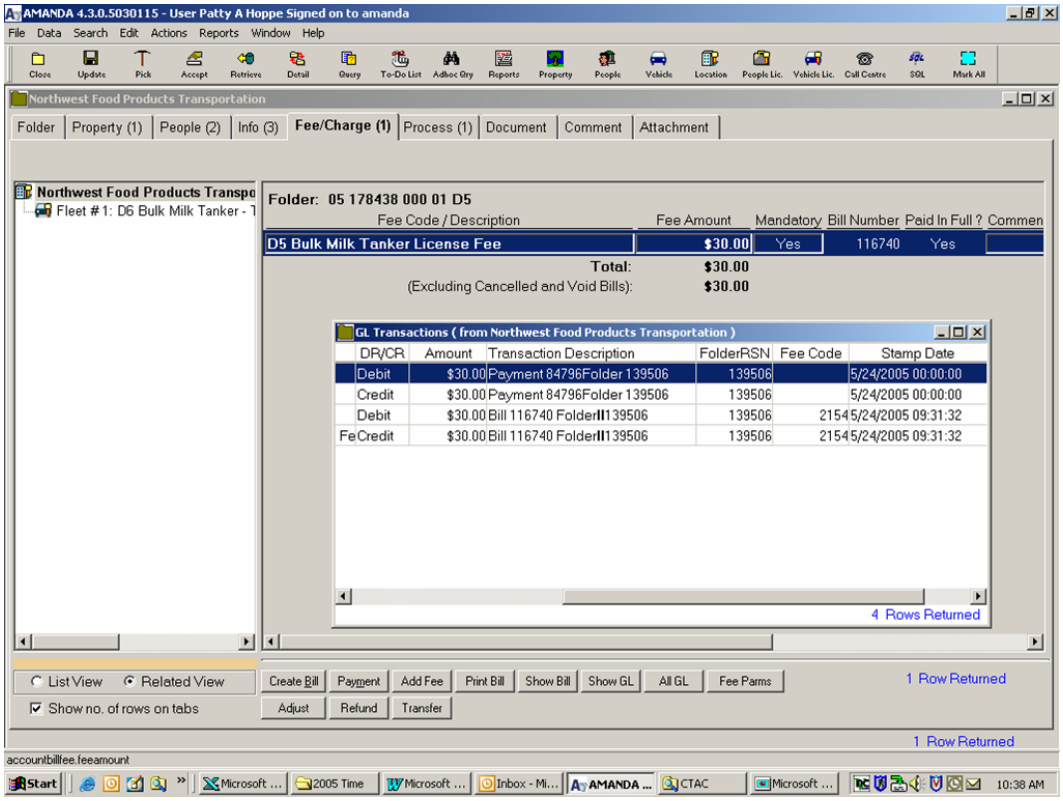
In DATCP's case this includes regulatory, inspection and licensing activity at the farm, during transport of products from farm to processing, during the processing, packaging and warehousing of products, and then to the distribution and stocking of agricultural products.

The success of having single identifiers for customers and premises can be seen in the following examples from DATCP's system. In this example a bulk milk hauler is shown with a fleet of tankers. The tanker fleet is effectively identified and licensed.



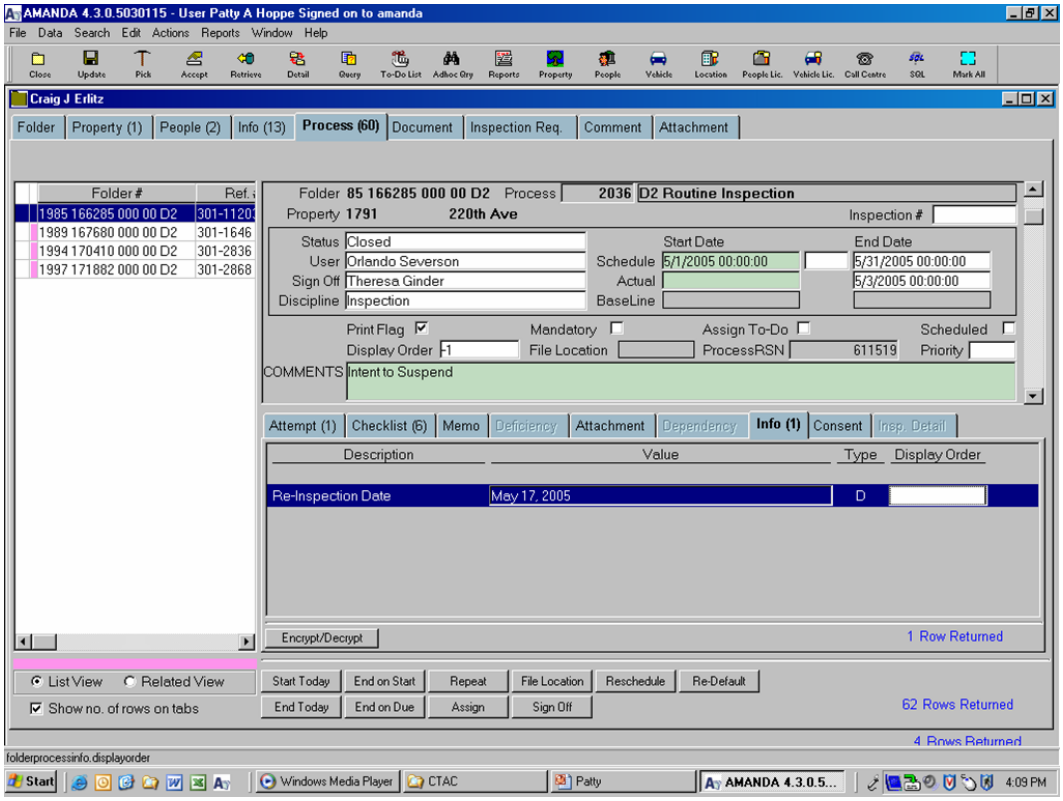
Note that the strategy of collecting information in related folders still allows for the unique selection of Properties and Contacts. The tabs across the top of this screen give a good indication of the success of the project's attempt to use a consistent and unique identifier for each person, facility or subject of regulation.

In the example below, not only can the new system track the customer and the milk tanker fleet, but it is also able to support the billing and financial activity associated with licensing. Note that the recordkeeping reflects the billing for this unique customer.



The support for licensing activity was a crucial success of the grant activity. All licensing in DATCP now shares a common approach, allowing (as we will see later) for reporting and tracking of Premises and Customers in ways not possible under the older, fragmented systems.

The system built as part of the grant activity does far more than support administrative record keeping. Here is an example where an inspection of a farm has been scheduled for between May 1 and May 30. Note that the inspection is linked to the other records associated with this Facility. The inspection, in this example, was not a success – the result is an "Intent to Suspend" and a required reinspection.



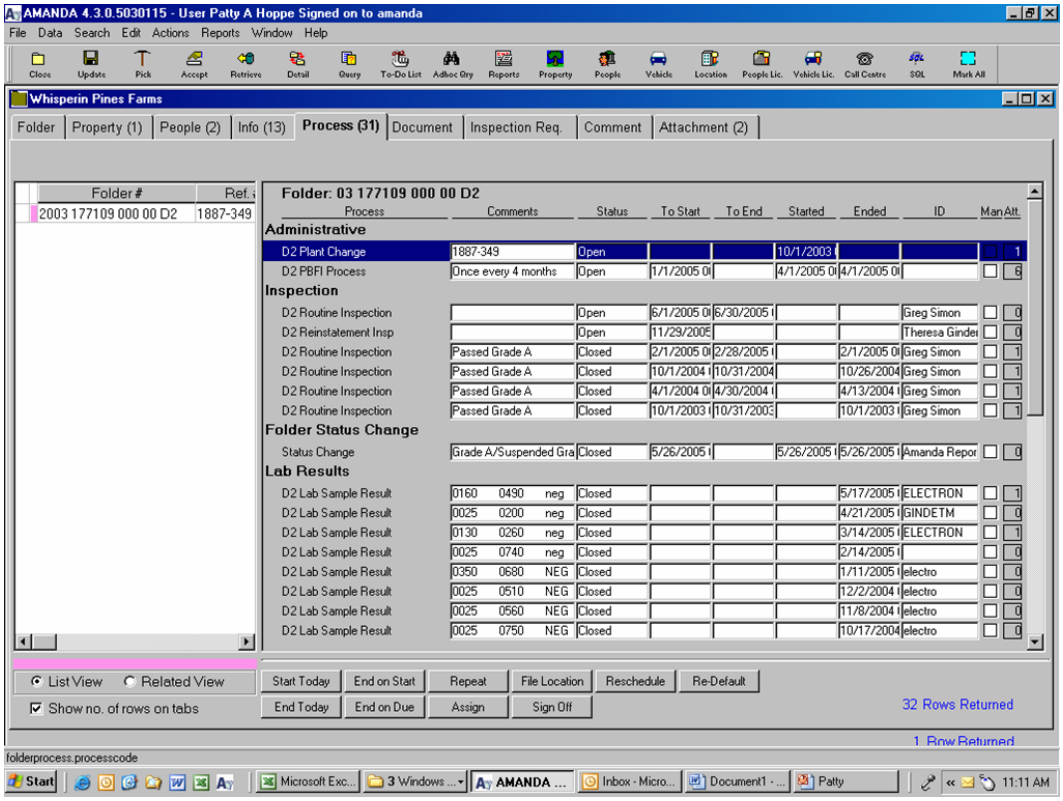
It is crucial to connect the administrative activity of licensing to the associated inspection and lab testing. The grant activity effectively provides a integrated approach to recording this information as we see in the next example.

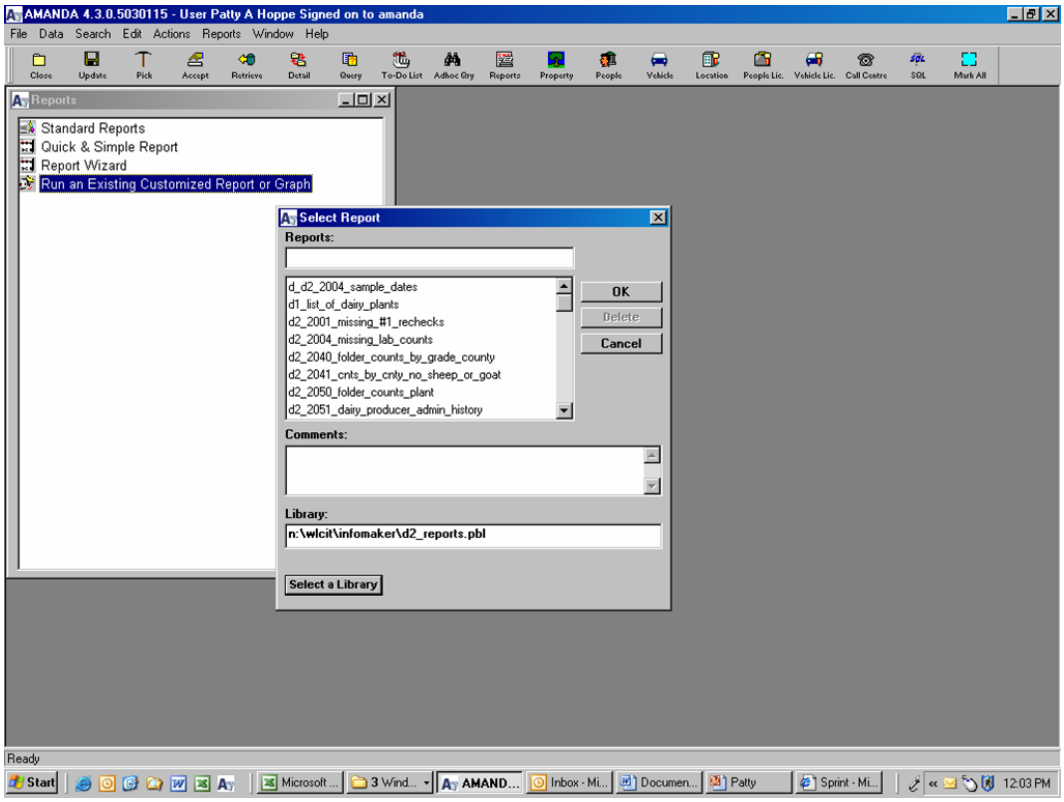
The business process for licensing often includes both inspections and lab testing of the safety for agricultural products. In the grant activity there was careful consideration given to how different program's needs would be met. After all, different licensing and regulatory regimes have different inspection and lab analysis requirements.

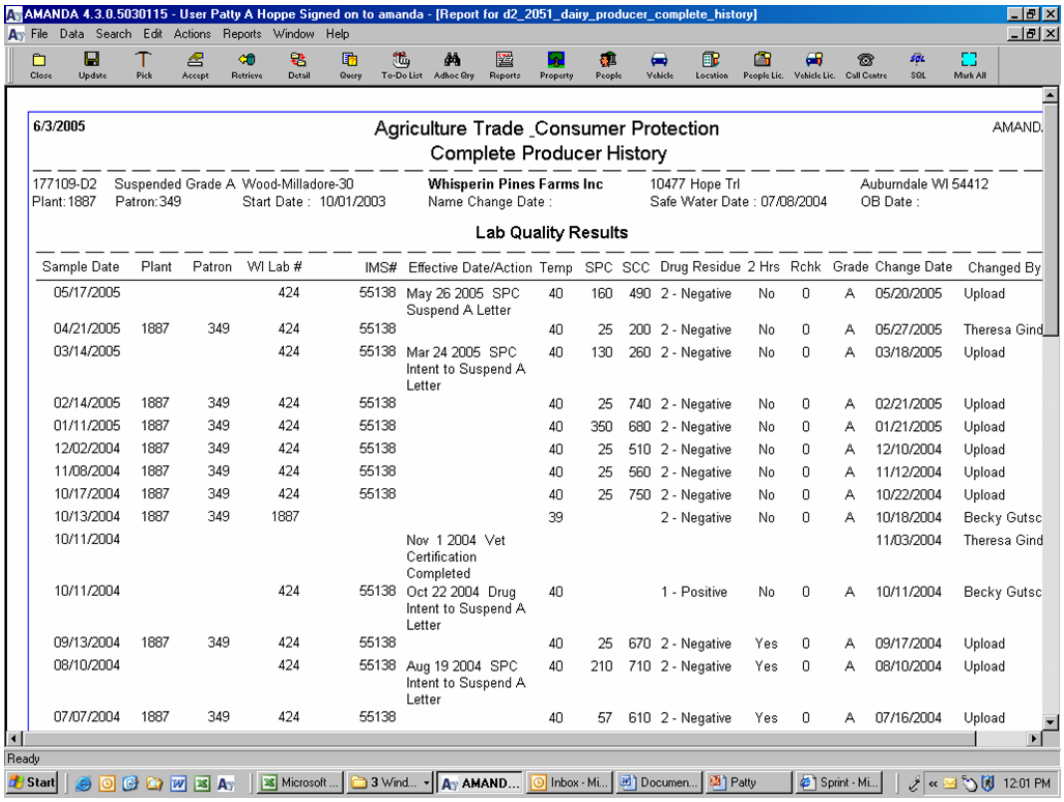
The grant applicants took the packaged software and customized it based on the business requirements for each licensing program. The result was a system where the inspection and lab analysis requirements could be customized for each license type, while maintaining a high degree of consistency for the customer/premise and facility information.

It is this combination of flexibility and consistency that has made it possible to achieve some of the grant's reporting and tracking objectives.

In the example below, lab results for a facility are recorded and analyzed.



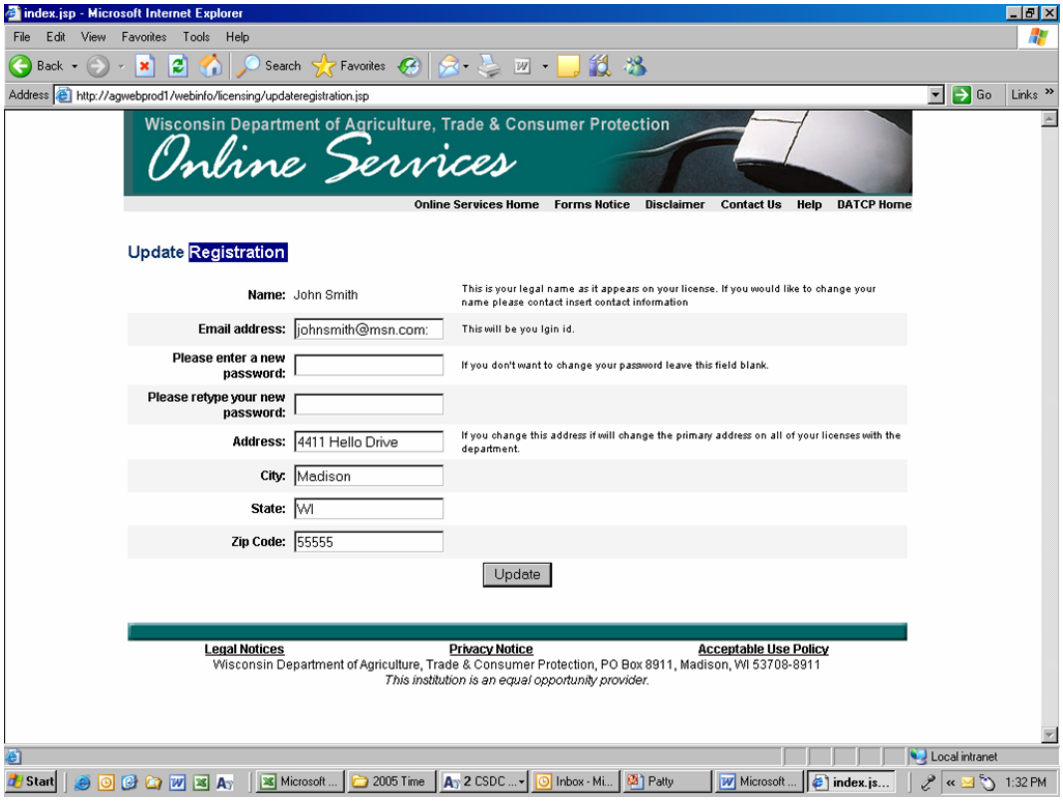

AMANDA 4.3.0.5030115 - User Patty A Hoppe Signed on to amanda
File Data Search Edit Actions Reports Window Help
Reports
Standard Reports
Quick & Simple Report
Report Wizard
Run an Existing Customized Report or Graph
Select Report
Reports:
d_d2_2004_sample_dates
d1_list_of_dairy_plants
d2_2001_missing_#1_rechecks
d2_2004_missing_lab_counts
d2_2040_folder_counts_by_grade_county
d2_2041_cnts_by_cnty_no_sheep_or_goat
d2_2050_folder_counts_plant
d2_2051_dairy_producer_admin_history
OK
Delete
Cancel
Comments:
Library:
n:\wlcit\infomaker\d2_reports.pbl
Select a Library
Ready
12:03 PM


AMANDA 4.3.0.5030115 - User Patty A Hoppe Signed on to amanda - [Report for d2_2051_dairy_producer_complete_history]
File Data Search Edit Actions Reports Window Help
6/3/2005
Agriculture Trade _Consumer Protection
Complete Producer History
AMAND
177109-D2 Suspended Grade A Wood-Milladore-30
Plant: 1887 Patron: 349 Start Date : 10/01/2003
Whisperin Pines Farms Inc
Name Change Date :
10477 Hope Trl
Safe Water Date : 07/08/2004
Auburndale WI 54412
OB Date :
Lab Quality Results
Sample Date Plant Patron WI Lab # IMS# Effective Date/Action Temp SPC SCC Drug Residue 2 Hrs Rchk Grade Change Date Changed By
05/17/2005 424 55138 May 26 2005 SPC Suspend A Letter 40 160 490 2 - Negative No 0 A 05/20/2005 Upload
04/21/2005 1887 349 424 55138 40 25 200 2 - Negative No 0 A 05/27/2005 Theresa Gind
03/14/2005 424 55138 Mar 24 2005 SPC Intent to Suspend A Letter 40 130 260 2 - Negative No 0 A 03/18/2005 Upload
02/14/2005 1887 349 424 55138 40 25 740 2 - Negative No 0 A 02/21/2005 Upload
01/11/2005 1887 349 424 55138 40 350 680 2 - Negative No 0 A 01/21/2005 Upload
12/02/2004 1887 349 424 55138 40 25 510 2 - Negative No 0 A 12/10/2004 Upload
11/08/2004 1887 349 424 55138 40 25 560 2 - Negative No 0 A 11/12/2004 Upload
10/17/2004 1887 349 424 55138 40 25 750 2 - Negative No 0 A 10/22/2004 Upload
10/13/2004 1887 349 1887 39 2 - Negative No 0 A 10/18/2004 Becky Gutsc
10/11/2004 Nov 1 2004 Vet Certification Completed 11/03/2004 Theresa Gind
10/11/2004 424 55138 Oct 22 2004 Drug Intent to Suspend A Letter 40 1 - Positive No 0 A 10/11/2004 Becky Gutsc
09/13/2004 1887 349 424 55138 40 25 670 2 - Negative Yes 0 A 09/17/2004 Upload
08/10/2004 424 55138 Aug 19 2004 SPC Intent to Suspend A Letter 40 210 710 2 - Negative Yes 0 A 08/10/2004 Upload
07/07/2004 1887 349 424 55138 40 57 610 2 - Negative Yes 0 A 07/16/2004 Upload
Ready
12:01 PM

On the previous page is another feature of the grant applicant's system – the reporting system. The system allows for the preparation of pre-generated reports that can be selected from a list of available forms. These so-called "standard reports" are supplemented by the ability to create reports that are not part of the pre-generated list.

The system provides a "report wizard" that allows creation of new reports on an as-needed basis. The report wizard is available to every user of the AMANDA system and is intended as a mechanism for avoiding long waits for custom generated reports created by IT staff.

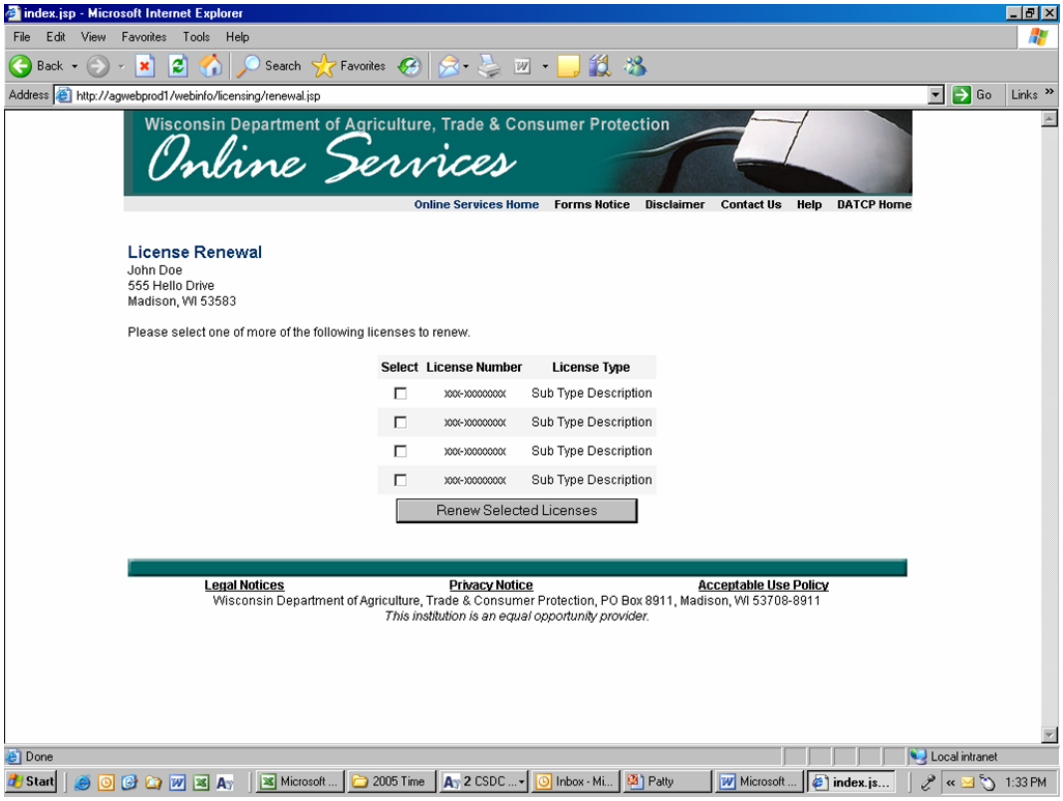
Much of the system underlying system is unseen by those who are regulated and tracked. Despite this, one of the successes of the project is the development of a web based interface to the databases that house the customer, premise and regulated entity information. In the following example, a customer is given the opportunity to update registration information:



The ability for the regulated party to change registration information is not just a user convenience. It is one of the foundations of ensuring that license record keeping is accurate. In the past, a regulated entity would send a change of address or other update to a single license administrator within DATCP. While the records of that program might have been updated, other licensing and regulatory programs within DATCP might not reflect those changes. By having a single

customer and premise identifier, DATCP is now able to allow the regulated entity to update information for all programs they administer.

The linkage to the databases is effective in another way: by avoiding the paper process of license application, billing and license generation, DATCP can reduce the amount of time it takes to serve its customers. Here is an example of how a regulated entity, once in the AMANDA system, can renew a license without submitting any paperwork:



APPENDIX A: AMANDA Folder Names and Types

AMANDA Folder Names and Types

	Type
Animal Health	
Official Brands (10 yr)	People
Cervidae	Location
Animal Dealer	People
Fish Import Permit	People
Animal Market	Location
Aquaculture	Location
Animal Trucker	People
Animal Feedlot / Veal Lot	Location
Agriculture Development	
Fair judges	People
Trade & Consumer Protection	
Consumer Securities	Location
Do Not Call (Access)	People
Grain Dealer	Location
Grain Warehouse Keeper	Location
Liquid Petroleum	Location
Milk Contractor	Location
Mobile Air	Location
Public Warehouse	Location
Vegetable Contractor	Location
Vehicle Scale	Location
Wgts & Measures Tech (5 yr)	People
Weights & Measures	Location
Food Safety	
Butter Graders	People
American Cheese Graders	People
Swiss Cheese Graders	People
Brick & Muenster Cheese Graders	People
Dairy Plants	Location
Dairy Producers	Location
Laboratories	Location
Lab Analysts	People
Bulk Milk Tanker	Location
Bulk Tank Vehicle	Vehicle
Retail Food Establishment	Location
Food Processer	Location
Food Warehouse	Location
Milk Distributors	Location
Bulk Milk Weigher/Sampler	People
Milk/Cream Tester	People
Cheese & Butter Makers	People
Retail Food Agents	Location
Meat Establishment	Location
Meat Inedible	Location
Meat Vehicle	Vehicle
Meat Distributor	Location
Mobile Slaughterer	Location

Agriculture Resource Management	
Commercial Applicator	People
CTS-Commercial Feed license	
CTS-Fertilizer License	
Ginseng Grower / Dealer	
CTS-Liming Material	
CTS-Pesticide Manufacturer/Labeler	Location
Nursery Grower/Dealers	Location
CTS-Pesticide Business	
Reciprocal Applicators	People
CTS-Pesticide Restricted Use	
Seed Labeler	
CTS-Soil & Plant Additive	
Veterinary Clinic (2 yr/odd yr renewal)	Location
CTS Folder Framework & PACS Certs	

APPENDIX B: Sample Livestock Premises Registration

On the following pages are forms from the livestock premises registration program. This program is integrated into the AMANDA/IIS and is intended to protect Wisconsin livestock health. The forms are an excellent example of how paper based systems are being coordinated with the DATCP IIS to ensure that rapid response to agricultural emergencies are possible.

The registration is done online at http://www.wiid.org and the first two pages are instructions to the person who has livestock in their possession.

The third and fourth pages are the registration itself.

Finally, the fifth page is the letter – generated by AMANDA and the DATCP IIS – that confirms the registration in the Premise Registration system.

DMS-LP-01 (08/2005)

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP)
WLIC Program, PO Box 8911, Madison, WI 53708-8911

Livestock Premises Registration (Wis. Stat. s. 95.51, and ch. ATCP 17, Wis. Adm. Code)

⇨ ***Complete this registration on-line at: www.wiid.org***

Instructions

What is livestock premises registration?

The livestock premises registration program is intended to protect animal health, as well as the security of the food chain. Premises registration will facilitate a rapid response to animal disease emergencies.

Who needs to register?

Any person† who keeps one or more livestock animals at a location in Wisconsin is required to register that location. To *"keep livestock"* means to own, feed, house, confine or care for livestock, or to exercise legal or physical control over livestock. However, if two or more persons have a role in keeping livestock at the same location, then any one of those persons may register that location – one registration will suffice for all.

† "Person" means an individual, corporation, partnership, cooperative, limited liability company, trust or other legal entity.

Specifically, the following facilities that keep livestock in Wisconsin ***must register***:

- **Milk producers** operating a dairy farm licensed under s. ATCP 60.02 (Wis. Adm. Code)
- **Slaughter establishments** required to be licensed under s. ATCP 55.03(3)
- **Equine quarantine stations** for which a permit is required under s. ATCP 11.32(3)
- **Deer farms** required to be registered under s. ATCP 10.61
- **Fish farms** required to be registered under s. ATCP 10.73(2)
- **Animal markets** required to be registered under s. ATCP 12.02
- **Animal dealer premises** operated by animal dealers required to be licensed under s. ATCP 12.03 (unless the premises is registered as an animal market)
- **Animal trucker premises** operated by animal truckers required to be licensed under s. ATCP 12.04 (unless the premises is registered as an animal market or as a premises operated by an animal dealer)
- **Rendering establishments, animal food processing establishments, and grease processing establishments** required to be licensed under Wis. Stat. s. 95.72. Transfer stations or other locations at which an operator collects livestock carcasses must be included
- **Livestock exhibitions**

Which locations need to be registered?

Any location at which livestock are kept in Wisconsin must be registered. Certain licensed livestock facility operations that keep or receive livestock ***or livestock carcasses*** at their sites must also be registered (See "Who needs to register?" above). *Even if there are only one or two livestock animals at a location, that location must be registered.*

Which animals are considered "livestock"?

- **Bovine** (bison and cattle)
- **Horses or other equine**
- **Poultry**
- **Swine**
- **Sheep**
- **Farm-raised deer or other cervids**
- **Fish** (kept at a fish farm)
- **Captive game birds**
- **Goats**
- **Llamas, alpacas, or other camelids**
- **Ostriches, emus, or other ratites**

Contact's phone number – Section B

If the contact individual does not have a phone number, provide the phone number of someone who would be able to reach the contact in case of an emergency, like a neighbor.

Address of Primary Premises Location – Section C

If the primary premises location does not have an address, enter a description of the location from a designated point (Example: "1/4 mile east of the intersection of Main Road and Jefferson Lane") *and provide GPS coordinates.* Call toll-free (888) 808-1910 for assistance.

Registrant's electronic account (optional) – Section D

If you would like to create your own user name and password to access your premises information on-line, complete this section. Premises registration information may be found at www.wiid.org. If you do not complete this section, a name and password will be chosen for you and mailed to the registrant address you provide.

Livestock premises type and non-producer participants – Section E

If there is more than one business operation on a premises, call the number at the bottom of the page for further instructions.

"Non-producer participants" are persons engaged in the National Animal Identification Program in one or more designated roles. Non-producer participants include the United States Animal Identification Number (USAIN) manager, USAIN tag distributor, designated animal health officials, and designated diagnostic laboratories.

Secondary locations – Section F

In addition to the primary premises location (Section C), you may also register one or more secondary locations at which you keep livestock from time to time.

For example, a dairy farm "premises" may include a *primary* location (that includes the milking barn or parlor) and one or more *secondary* locations (such as a non-contiguous pasture or heifer facility). If a person keeps livestock at multiple locations but never moves or commingles livestock between those locations, the person is advised to register those locations as separate premises (separate primary locations, each with its own premises code).

If a secondary location has no street address, provide general directions from the primary premises to the secondary location and any other information that would help determine where that location is.

No more than 3 secondary locations can be added under a single premises code without agency approval. (To seek approval, contact the agency at the address listed on the front of the form.) The agency will determine whether the secondary locations are part of the same premises for registration purposes, or whether they should be registered as separate premises under separate premises codes.

Additional premises must be registered separately. Premises registration forms may be obtained by calling (608) 224-4726.

Annual Renewal Required – Section I

Livestock premises registration must be renewed every year. Renewal materials will be sent to you at your mailing address or you may renew on-line at www.wiid.org.

If you have any questions, please call toll-free (888) 808-1910

DMS-LP-01 (04/2005)

Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP)
WLIC Program, PO Box 8911, Madison, WI 53708-8911

For Office Use Only
177295 - D2

Livestock Premises Registration

- If, in addition to registering a livestock premises, you are applying for or renewing a license, certificate, or permit issued by DATCP, return this form with your application or renewal materials. Otherwise, return this form to the mailing address above.
- If the livestock premises has already been registered in 2005 or 2006, you do not need to complete the entire form. Enter the 7-digit livestock premises code _____ , complete Sections A and G, and return as instructed (above).

A. Registrant information

Name of individual (first name, middle initial, last name) * **OR legal name of business** (or other legal entity) *

Phone*

All trade or other names* , if any (d/b/a or "doing business as")

County

Mailing address*

City/Village/Town*

State* **Zip code***

Registrant type: check one

☐ **Individual** (includes pet owner or hobby farm) ☐ **Corporation** ☐ **Partnership** ☐ **Cooperative** ☐ **Limited Liability Company (LLC)**

☐ **State or local government entity** ☐ **Tribal entity** ☐ **Trust** ☐ **Estate** ☐ **Limited Liability Partnership (LLP)**

B. Contact information

Primary contact*

Phone* ☐ Home ☐ Business ☐ Cell ☐ Pager **Alternate Phone** ☐ Home ☐ Business ☐ Cell ☐ Pager

Alternate contact #1

Phone ☐ Home ☐ Business ☐ Cell ☐ Pager **Alternate Phone** ☐ Home ☐ Business ☐ Cell ☐ Pager

C. Address of primary premises location

Description of location (Examples: "milking barn" or "pasture")

☐ **Check here if same as mailing address in Section A and skip to Section D**

Address

City/Village/Town **State** WI **Zip code** **County**

Township number (1 – 53N) **Range number (20W – 30E)** **Section number (1-36)** **¼ Section** **¼¼ Section**

GPS coordinates – West (must be between –94.000 and –86.000) **GPS coordinates – North (must be between 42.000 and 48.000)**

D. Registrant's electronic account (optional)

Registrant's user name – must be 8 to 12 characters, case sensitive

Registrant's password – must be 8 to 12 characters, case sensitive **E-mail address**

All information with an asterisk (*) is required under Wis. Stat. s. 95.51 and s. ATCP 17.02, Wis. Admin. Code

E. Livestock premises type* Check ONE that best applies. If your premises has more than one type of operation, see instruction sheet.

- ☐ **Farm or production unit** (Includes hobby farm)
- ☐ **Livestock exhibition**
- ☐ **Market or livestock collection point**
- ☐ **Rendering or carcass collection point**
- ☐ **Slaughter establishment**
- ☐ **Clinic**
- ☐ **Quarantine facility**
- ☐ **Non-producer participant** (See instruction sheet for definition and examples)
- ☐ **Tagging site**
- ☐ **Laboratory**

F. Types of livestock *or livestock carcasses* on premises* Check ALL that apply.

- ☐ **Bovine** (bison, cattle)
- ☐ **Camelids** (includes llamas and alpacas)
- ☐ **Captive cervids** (includes deer, elk, moose, caribou, reindeer, and the subfamily musk deer)
- ☐ **Equine**
- ☐ **Fish** (includes all fish kept at a fish farm that requires registration under s. ATCP 10.73(2))
- ☐ **Game birds** (includes pheasants, quail, wild turkeys, migratory wildfowl, pigeons, and exotic birds raised in captivity)
- ☐ **Goats**
- ☐ **Poultry** (includes chickens, turkeys, geese, ducks, guinea fowl, and squab)
- ☐ **Ratites** (includes rheas, ostriches, emus, cassowaries, and kiwi)
- ☐ **Sheep**
- ☐ **Swine**

G. Secondary locations (if applicable)* If your premises has more than one location (but the same contact individual), you may list up to three secondary locations here. (Example: a dairy farm may list its heifer and dry cow facilities below as two secondary locations because they are at separate geographical locations, yet the contact individual is the same for all locations AND livestock are commingled.) Additional premises need to be registered separately (see instruction sheet).

Description of location (Example: "dry cow facility -- 3 miles west of main premises")

Address	City/Village/Town	State	Zip code	County
		WI		

Description of location (Example: "heifer facility -- 5 miles southeast of main premises")

Address	City/Village/Town	State	Zip code	County
		WI		

Description of location

Address	City/Village/Town	State	Zip code	County
		WI		

H. Signature

I declare that I have examined this registration application, and to the best of my knowledge it is true and correct.

Signature of registrant or authorized representative _____ **Date** _____

Print name of person signing _____ **Title of person signing** (Examples: "livestock owner" or "Vice President, XYZ Farms, Inc.") _____

I. Renewal (optional) If you do not check an option, you will receive your renewal materials by US Mail.

(Check one)
- ☐ Next year, I prefer to renew livestock premises registration on-line.
- ☐ Next year, I prefer to renew livestock premises registration by sending a paper form through the US Mail.

Additional premises registration forms may be obtained by calling (608) 224-4726.

- Information provided for livestock premises registration is CONFIDENTIAL to the extent provided under Wis. Stat. s. 95.51 and s. ATCP 17.03, Wis. Adm. Code. Personally identifiable information may be used for purposes other than that for which it was collected
- Failure to provide the required information may result in penalties, which include withholding any license, certificate or permit issued by the agency under Wis. Stat. chs. 93, 95 or 97, and chs. ATCP 10, 11, 12, 17, 55, 57, or 60, Wis. Adm. Code, and penalties under Wis. Stat. s. 95.99.
- Upon request, this application can be made accessible to persons with disabilities.

State of Wisconsin
Jim Doyle, Governor

Department of Agriculture, Trade and Consumer Protection
Rod Nilsestuen, Secretary

[JANUARY 1, 2006]

«Registrant Name »
«Account_Address_Line_1»
«Account_City», «Account_State» «Account_Zip»

ONLINE LIVESTOCK PREMISES REGISTRATION CONFIRMATION

Dear Registrant:

Thank you for registering your livestock premises online with the Department of Agriculture, Trade and Consumer Protection. Your account information is below and will need to be renewed annually. **Keep this letter for your records.**

Livestock Premises Code:	[1234ABC]
Primary Premises Name/Description:	[Home]
Secondary Location Name/Description:	[Heifer barn]
Secondary Location Name/Description:	[Pasture]
Secondary Location Name/Description:	[Feedlot]

You provided a user name and password when you registered online. Log in to view or update your information at:

http://datcp.state.wi.us/ah/agriculture/animals/premises/premises_registration.jsp

Attached below is your premises identification card. As the National Animal Identification System is developed by the United States Department of Agriculture, you may need this card at a later date to purchase animal identification tags.

Please check that the information on your card is accurate. If there are any errors on your card, please make changes at the registration website (web address above) or contact processing agent WLIC (contact information of WLIC is below, right) within 10 business days of the date of this letter.

Please call 888-808-1910 if you have questions.

Thank you.

Premises Identification Card

WLIC
135 Enterprise Dr., Suite ID
Verona, WI 53593-0230

Phone: 888-808-1910
Fax: 608-845-1999
E-mail: [provide e-mail address here]

ACCT NO

Agriculture generates $51.5 billion for Wisconsin

2811 Agriculture Drive • PO Box 8911 • Madison, WI 53708-8911 • 608-224-5012 • Wisconsin.gov

APPENDIX C: Sample Renewal Application

The DATCP IIS built through this TOP grant has a foundation of an integrated IIS that supports licensing, inspection and other regulatory systems. It is this system that produces gains in responsiveness to agricultural information requests. This system also provides the ability to track, report and respond in the event of agricultural emergencies.

One of the fundamental tasks during the creation of the IIS was to build a new licensing system that replace a legacy set of applications. The consumer of DATCP services sees renewals generated as they have in the past, but now they support online renewal and the ability for the consumer to change registration information for all license types.

On the following page is an example of what the regulated entity sees during this process. The sample is a renewal application for a bulk milk weigher and sampler. Note the ability to respond to this renewal request online and the ability to make corrections to contact and premise information (both on paper and online).

Wisconsin Department of Agriculture,
Trade & Consumer Protection
Contact Phone #: (608) 224-4720
20 - DFS

DMS-BIT-05 (02/03)

License Number: 130556-F5
Expires:
Statute: 98.146

Renewal Application
Bulk Milk Weigher and Sampler License

Legal Name: MIKE ZIMMERMAN 4526 HAMLET PL MADISON WI 53714	**MAKE CORRECTIONS / UPDATES HERE**

You must review, complete and return all pages of this renewal application in its entirety with the appropriate fees. Failure to do so may delay License issuance.
To avoid a late penalty fee, your renewal application and fee must be received by the department on or before

your License will be issued. If you do not apply by the renewal deadline, your License will expire and you may no longer operate.
Personal information you provide may be used for secondary purposes (Privacy Law Wis. Stats. s. 19.62-19.80).

Renew on the web at http://onlineservices.datcp.wi.gov/eNtraprise/ **PIN: 43672**

PLEASE MAKE CHECK PAYABLE TO : WISCONSIN DEPARTMENT OF AGRICULTURE, TRADE & CONSUMER PROTECTION
MAIL WITH RENEWAL APPLICATION TO: BOX 93479 MILWAUKEE, WI 53293-0479

20 - DFS
F5 - Bulk Milk Weigher and Sampler License

MIKE ZIMMERMAN
4526 HAMLET PL
MADISON WI 53714

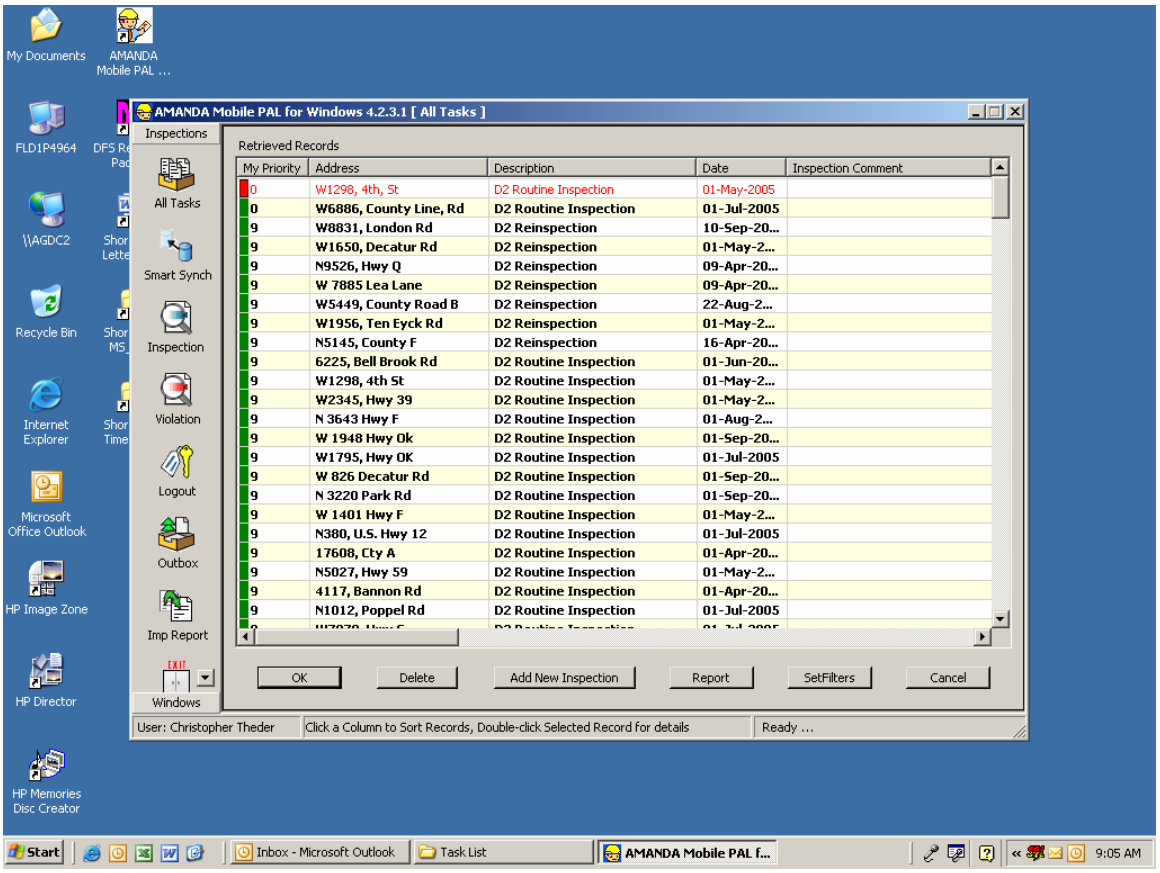
Due Date:	Amount Due:
Renewal License Number: -F5	
Legal Name: Mike Zimmerman	
TOTAL AMOUNT PAID: $	

1150000009301000020000012000O2

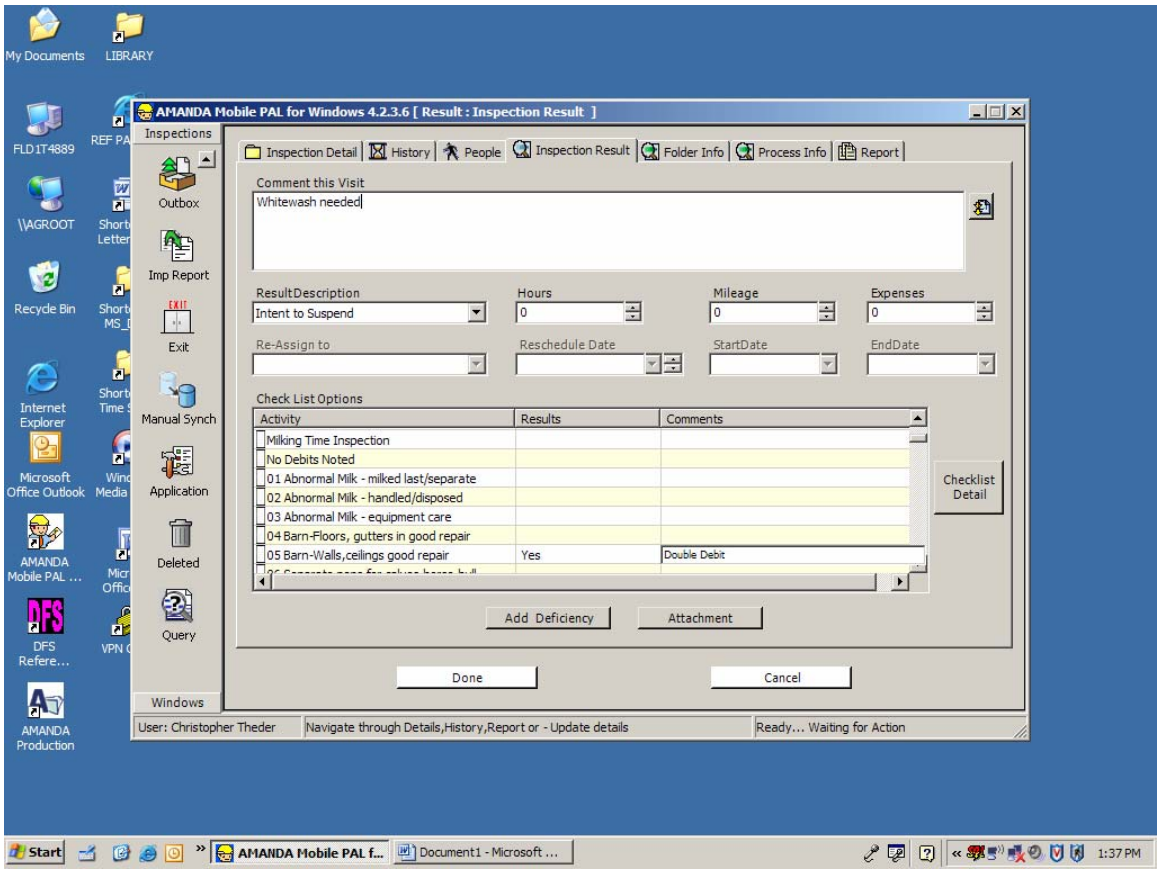
APPENDIX D: AMANDA Mobile Examples

The mobile inspection component of the DATCP IIS uses a customized product known as AMANDA Mobile.

The following screen shows the AMANDA mobile product with a list of scheduled inspections. The highlighted inspection is marked in red to indicate that the inspection is overdue.



Note that the field inspection agent can use any of the icons on the left hand panel of the screen to access inspection, violation and reporting tasks. Once the inspection is in progress there are a variety of screens that support the inspection activity. On the next page, you can see a sample inspection where the history, individuals associated with the site, and other inspection related information are kept together.



In this case the example is displaying the inspection result. This gives the inspector a chance to use a checklist to guide the inspection process. In this example the inspector has chosen "Intent to Suspend" and provided some commentary for the visit.

The advantage of this mobile inspection component is that, once the mobile unit has been synchronized with the DATCP IIS, all the results of the inspection will be available to authorized users of the IIS in realtime.