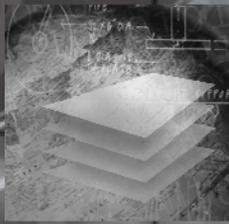
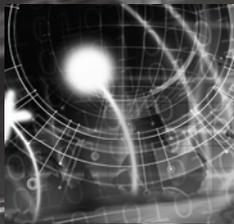


SYSTEM EVALUATION



Enterprise Permitting System Evaluation



Prepared for:
City of West Sacramento, CA

Submitted by:

Geographic Technologies Group

648 North Spence Avenue

Goldsboro, NC 27534

1.888.757.4222 toll free

Geographic
Technologies
Group

Understanding Local Government

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Chapter One: Project Background

History of Information Technology in Local Government

During the 1950's and 1960's government agencies were at the forefront of technological innovation. Many organizations were using information technology (IT) in innovative ways to assist with government operations leading to ever increasing technological advancements. In the 1950's the federal government provided the primary uses for computer technology in the areas of defense, scientific research, and military applications. In the late 1950's, with the advent of the space program, major advances were made in the use of computer technology. The first large scale data-processing installation was developed in the early 1950's at the US Census Bureau.



Local governments began using computer technology in the 1960's in the fields of accounting and finance, using IBM mainframe computer technology. The initial impetus towards programming languages for business applications came from the US Department of Defense support of the COBOL programming language in the 1960's. Therefore, in most local governments the computing centers often termed Data Processing Divisions were located within the Finance Department of local governments.

In the 1970's keyboards and terminals were being widely used instead of typewriters. Batch processing began to fade and software development started to emerge. Desktop microcomputers were being developed in the late 1970's. Some larger cities created IT Departments based on accounting, finance, and billing functions.



The 1980's saw the development of the personal computer (PC) and networking. Mid-sized and smaller cities formed IT Departments/Divisions to support this ever expanding technology.

The 1990's saw the development of the Internet and with that major software development across a variety of departmental areas. It became evident that computer technology was no longer just useful for accounting functions; there was a need to make this new technology available for all organizational departments. Local governments began to use technology to track permitting, work orders, mapping and virtually all aspects of their operations. Organizationally, a centralized approach to IT became the norm. The role of IT in government has changed very rapidly over the last few decades. The systems that once were considered a luxury are now supporting day-to-day functions in all areas of local government.



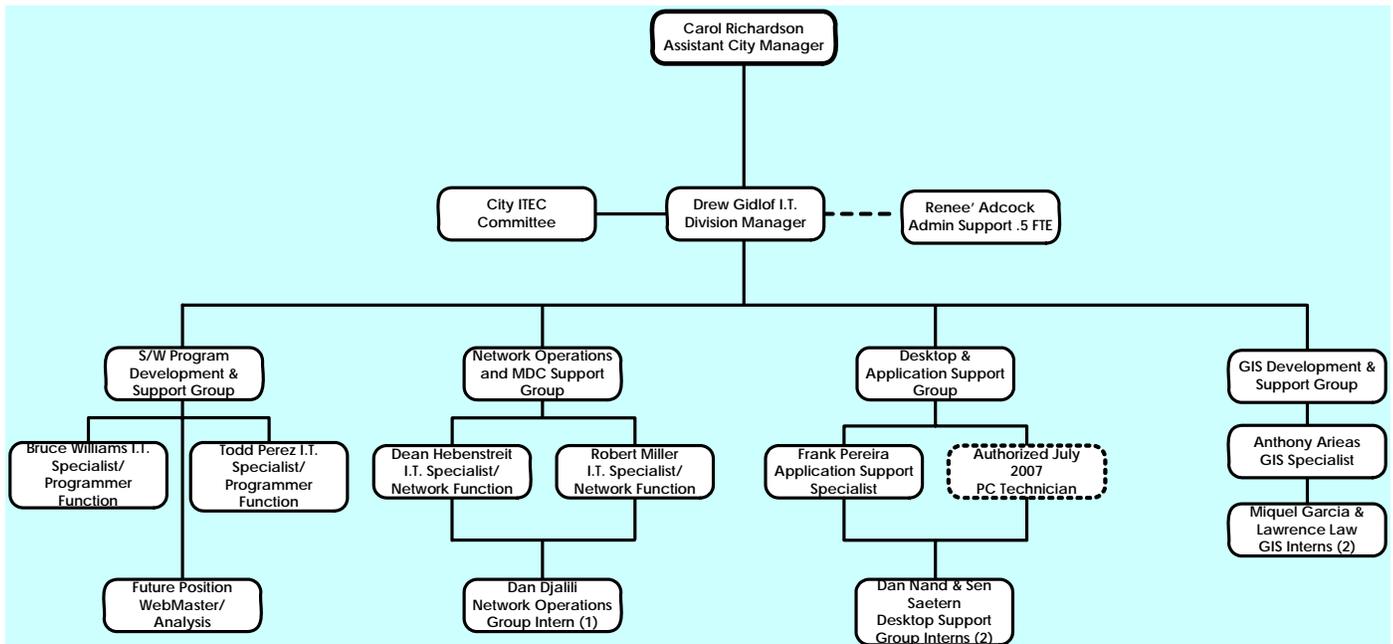
Local government IT has evolved as computing technology has evolved. Traditionally, a city's mainframe would be upgraded or replaced every five to ten years. Users utilized "dumb terminals" also known as "green screens" to manage the critical financial data of the city. These computers were all hardwired to the mainframe. At this time a few technical staff was needed to run reports, do some programming, and maintain the hardware. However, this traditional model has radically changed. Users now demanded voluminous amounts of data, mobile computing, powerful personal computers, and software that is very flexible in regards to meeting the needs of the user. Additionally, the Internet has made city computing the realm of the public in addition to internal users. This requires

a host of technical staff to manage networks, hardware, databases, and software. IT has gone from the “back room” to the forefront of every local government function.



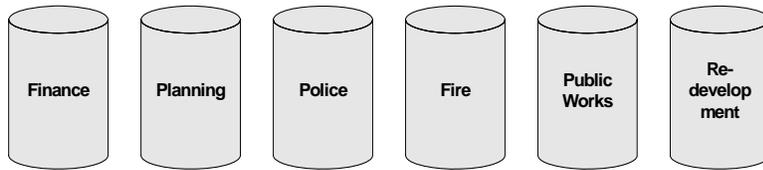
History of Information Technology at West Sacramento

West Sacramento’s history dates back over 100 years. However, the City of West Sacramento was not incorporated until 1987. Prior to that, the area was governed as part of a Community Service District. At that time, one person was employed that could be classified as an IT person. This person focused on the financials of the Service District. Shortly after incorporation, the IT functions became part of the Finance Department and a consultant was hired to establish the operation. Over the next few years, IT operations grew to a total of three individuals. Like other cities, the IT staff was in Finance, which was where most of the computing was taking place. However, with the rapid expansion of computing to all city departments IT quickly became not just the realm of finance. Approximately 12 years ago, the IT Division was moved to the City Manager’s Department to better align it with its primary role of customer service throughout the City. Over the past ten years IT has grown to its present staffing level and operational structure. Presently, IT has expanded into different sections focusing on core technologies including software, networking, support, and geographic information systems (GIS) (See organizational chart below).



West Sacramento IT Division

The IT Division has to continually incorporate new technologies while supporting an ever increasing user base of internal and external users. Traditionally, as cities have grown islands or “stovepipes” of technology have been implemented. For instance, a department would have a need for a software product to assist with a given task. They would acquire a product that fulfills that need but would not incorporate other city functions. This caused city’s to have islands of software applications and databases that did not communicate with each other. This resulted in inefficiencies such as redundant databases and one business



Data “Stovepipes” or Silos

databases with the same repeated data. To compound these inefficiencies, the data entered into these disparate systems is often entered differently. A recent study in a mid-sized city in Virginia identified 42 different databases housing address information. Another city found that within one database an address for a local shopping complex had been entered into the system 94 different ways.

These same issues are faced by almost every city in the United States. This is due to the natural progression of municipal computing outlined above. Cities are now realizing that they must tear down these data and computing “stovepipes” and move towards systems that share data and communicate with each other. This along with public Internet government, and mobile computing are the challenges that local government IT Departments/Divisions are now facing. Specifically, West Sacramento is analyzing enterprise needs for permitting. The remainder of this document will focus on the options available to West Sacramento in regards to enterprise permitting for internal and external customers.



Permitting Software

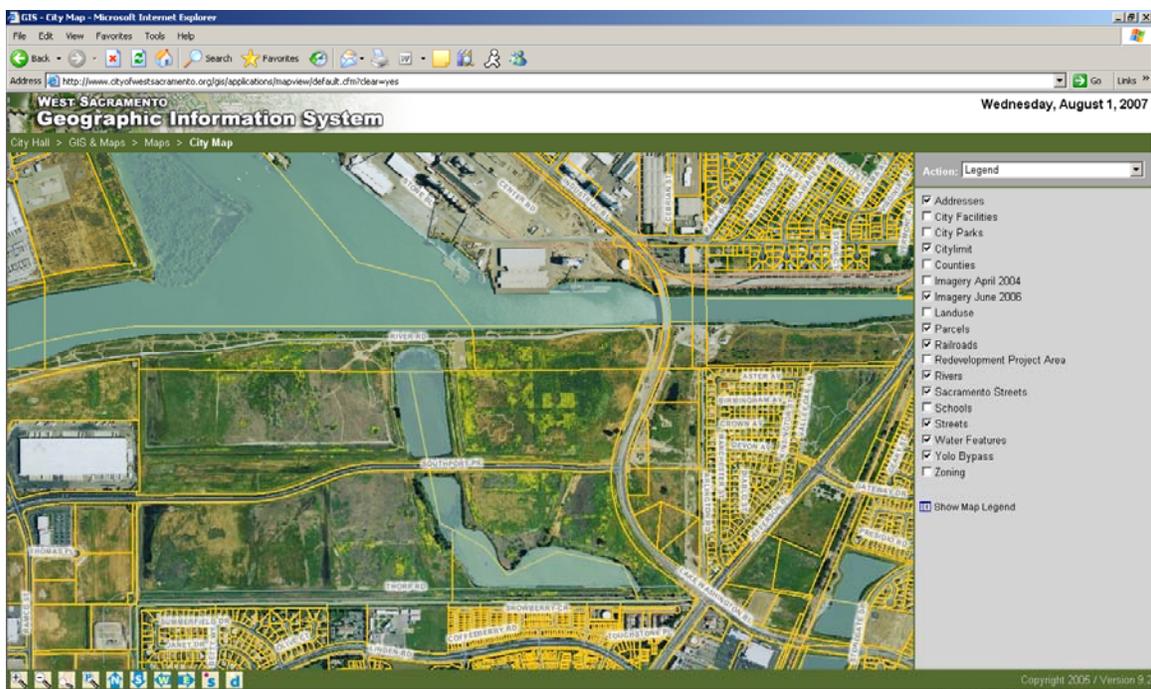
Like all cities, West Sacramento was tracking growth via paper. Building permits, certificates of occupancy, development review, inspections, etc. were all tracked and stored on paper. As the City grew this became more and more inefficient. Staff would have to spend untold time reviewing paper files to find pertinent information. Even with the best efforts, important information was often overlooked. Managing all of this important land-based data became an overwhelming task. Computer software companies recognized the need to store all of this information in databases and manage the process via software. Software companies created permitting software packages. Some of these packages focused on narrow niches such as permitting only. Others, attempted to incorporate all land-based functions into an enterprise software suite. Today, almost every City in the United States utilizes a software package to track and manage all of these land-based activities.



In 1995, the City of West Sacramento began implementing PERMITS Plus software from Sierra Computer Systems (which later merged with Accela) to track permitting and other land activities. Prior to implementation, staff stored building permit data within a Microsoft Access database. The Microsoft Access database did not provide for enterprise-wide access or a high degree of quality assurance/quality control (QA/QC) for data input. As such, other departments and divisions of the City found it difficult to track down and research reliable permitting activity data. This necessitated the procurement of an off-the-shelf application that allowed for permit tracking in a more controlled and distributable environment. After reviewing several software options, Building Department staff decided that PERMITS Plus

best met their needs considering budgetary constraints. This initial implementation was conducted for permit tracking within the Building Division only. This accomplished the goals of implementing a computer based permitting system and facilitating the improvement of the City's building permit process.

After a few years of use, it became evident that access to permitting data was needed by many City departments. This presented two problems for the City. One is that the PERMITS Plus data was stored in a non-enterprise database. The second technological hurdle was that PERMITS Plus did not have an effective mechanism to enable users to view and query data via a web based intranet tool. To address the database issue the City elected to move the database to Microsoft Sequel Server (MS-SQL) in 2003. This enabled IT staff to begin creating intranet tools that allowed City staff to search and view all permitting activity from issuance to completion. The expansion of data access to other departments moved the PERMITS Plus data outside of the Building Division to the entire City. This elevated the importance of the permitting application from a closely held "stove-pipe" application to an enterprise application. As such, other staff quickly realized the importance of the PERMITS Plus application and resultant data and began to desire more from the system and to use the system for their own needs. Additionally, the move to MS-SQL allowed for the City's GIS to begin utilizing this data for data creation and data cleanup tasks.

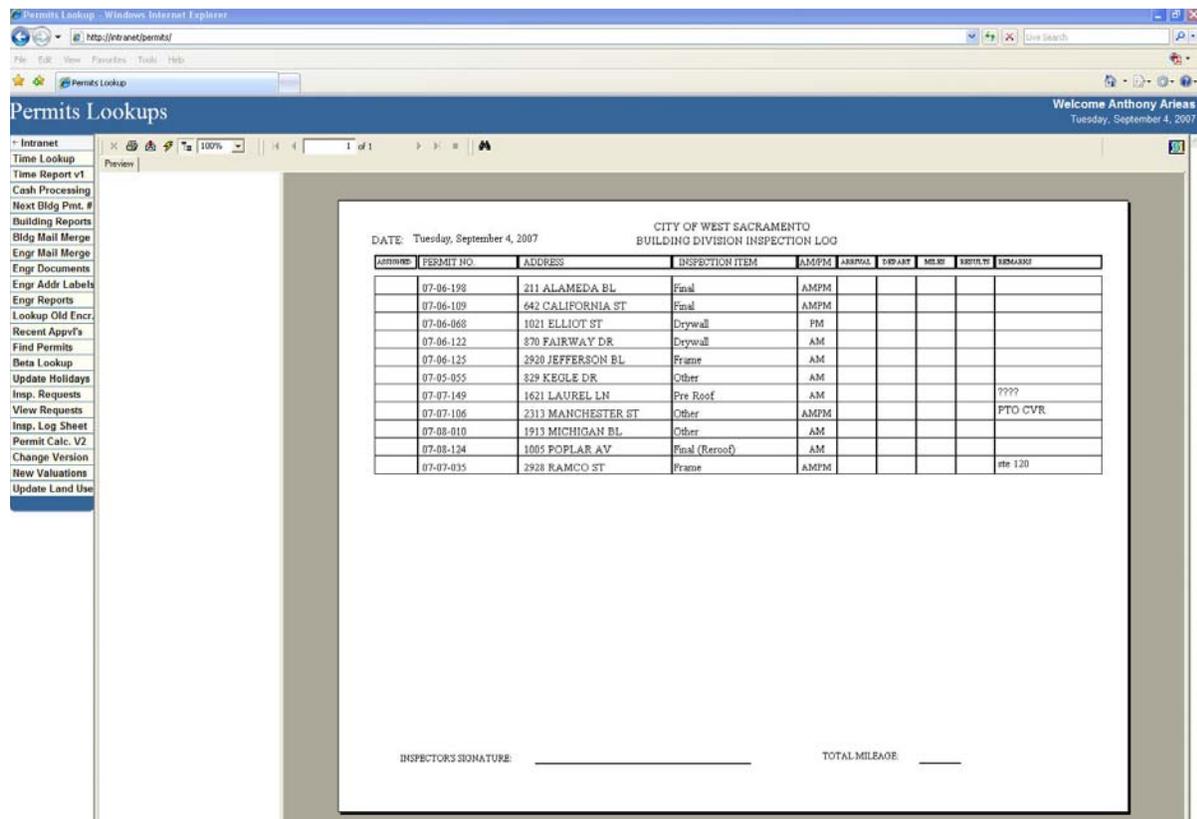


Permitting and address data now have GIS integration components

During this time, the Engineering Division had also been utilizing a separate Access database that had been developed in-house for their permit issuance and tracking. This was yet another of the "stovepipe" applications/databases that had occurred over time. In 2002, the IT Division moved this database to PERMITS Plus and created intranet applications for managing and accessing this data. Like the earlier intranet interfaces, this process allowed enterprise access to Engineering permit data. Although, the systems core focus was now the Building and Engineering Divisions other users in Finance and Planning began to utilize the PERMITS Plus system to manipulate data and create reports.



Current Permit Reporting Interface

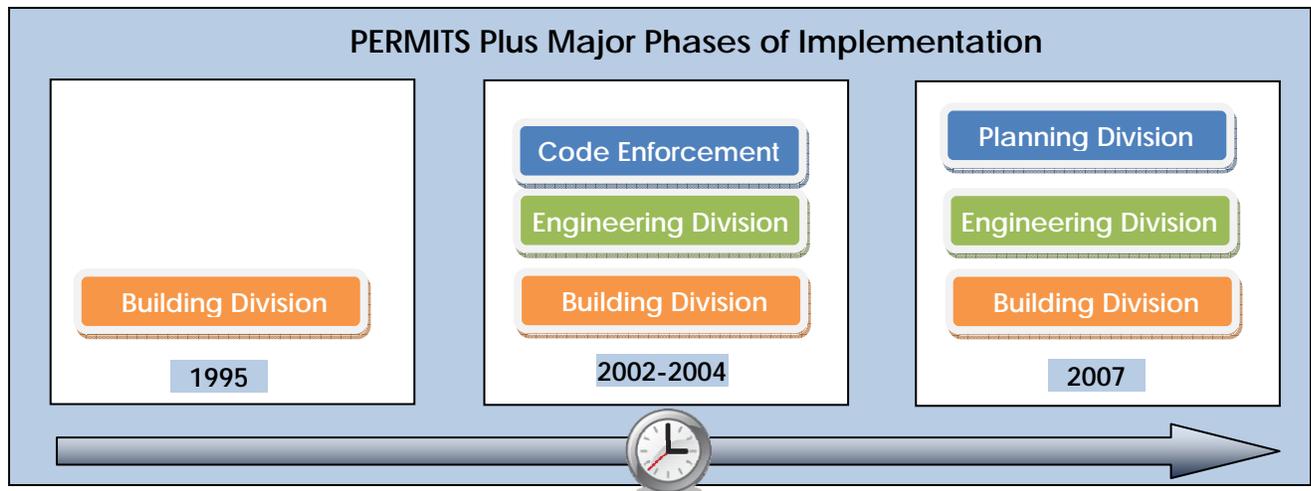


Building Division Inspection Log

City staff identified the need to link images, Microsoft Office files, and other files to permitting records. A PERMTIS Plus add-on module, Office Link, was acquired from Accela in 2006 to perform this function. Office Link allows users to link Microsoft Office documents, and other documents or attachments, including images, to permitting records. These files can then be retrieved through the PERMITS Plus (depending on how they are attached to the permits record) interface and become a permanent part of the pertinent data record. However, attachments that are not stored in the centralized storage area for PERMITS Plus may not be able to be viewed by all users.

The Planning Division has identified many needs for storing data in an enterprise permitting system. IT and the PERMITS Plus Evaluation Team (the PERMITS Plus Team) have been working on incorporating Planning data and tasks into PERMITS Plus. The new Planning functions are scheduled for deployment in late 2007. Planning functionality will track all applications that Planning processes including, but not limited to, General Plan Amendments, Rezoning requests, Tentative Subdivision and Parcel Maps, and eventually, parcel genealogy.

Since project inception, there have been three major phases of implementation of the PERMITS Plus product for the City. To recap, the first phase was the implementation for the Building Division. The second major phase of implementation was conducted in 2002. For this expansion, IT created additional tools and features to incorporate tasks within the Engineering Division of the Community Development Department. The latest expansion phase includes enhancements to PERMITS Plus for tracking and issuance of Planning Division tasks and services. The City anticipates these enhancements to be available in the 3rd or 4th quarter of 2007.



PERMITS Plus Evaluation Team

In March of 2006, amid on-going frustration among staff regarding the lack of reporting functionality and some system malfunctions, the Community Development Department created the PERMITS Plus Evaluation Team (the PP Team). This Team is comprised of primary users from the Building, Engineering, and Planning Divisions, as well as the IT Application Specialist from the IT Department. The goal of the PP Team is to evaluate the existing functionality and capabilities of the PERMITS Plus system in meeting the City's current and future needs.

Since the Team's inception, members have held numerous informal meetings to discuss how to achieve their goals, and to share information regarding progress of identified tasks. One of the Team's first recommendations was to request an upgrade of the PERMITS Plus system from version 4.7.22 to version 5.2.18. Upgrading Accela PERMITS Plus presented challenges to the IT Division. These challenges resulted in longer than anticipated time spent upgrading the system and reinstalling the Accela software.

As part of their efforts to gain more knowledge about the PERMITS Plus system, the PP Team has attended Accela conferences in August of 2006, and August of 2007. During these conferences, they attended classes to learn more about the functions and capabilities of the system, and made contacts with various other jurisdictions that use PERMITS Plus to gain further insight from how others use their PERMITS Plus systems.

In September of 2006, the PP Team recommended purchase and installation of the Office Link module from Accela to be able to attach various documents and images to permits within PERMITS Plus. Office Link was purchased and added to the system in October of 2006.

After the PP Team identified many of their frustrations with their existing PERMITS Plus system, and items that needed upgraded, added to, or enhanced, the Community Development hired a PERMITS Plus consultant, IK Consulting, at the PP Team's request. Since IK Consulting was hired, they have corrected, enhanced, and added to the reports and receipts in PERMITS Plus, provided administrator training for the PP Team, designed the Planning functionality with the help of the Planning Department, helped the PP Team tighten down securities within the system, and most recently during the week of September 10th through the 14th, provided user training on the PERMITS Plus system for more than 60 City employees.

Based on the consultant's performance on the above items, the PP Team negotiated a new contract with IK Consulting for another year of work, in which the IT Division and the Community Development Department will share the cost of the new contract. The PP Team's goals for this new contract include:

- Helping to revise the system to provide for one cashier for Community Development.
- Adding further Engineering functionality to track subdivision projects, plan approvals and revisions, final map and construction acceptance dates, and subdivision bonds.
- Adding Public Works' sidewalk encroachment permits and fire hydrant permits to the system.
- Adding functionality for the Engineering Inspectors to track inspections on Engineering permits.

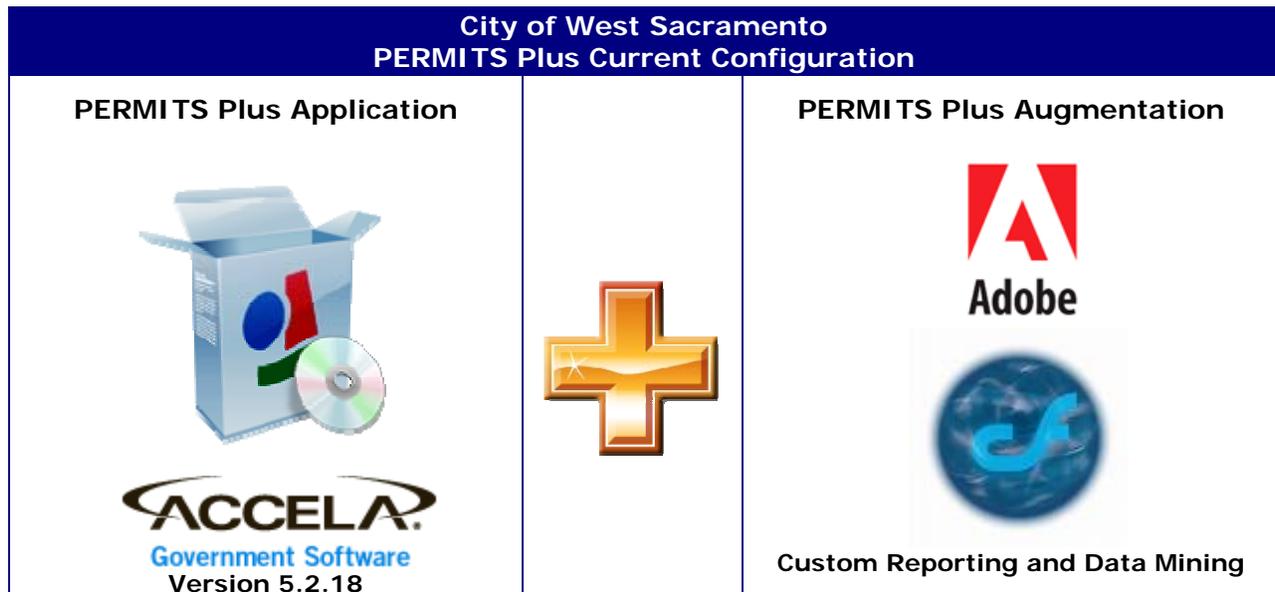
As the contract allows, there may be available funds left to enhance Code Enforcement's reports and screens, and add other custom reports that staff continue to request.

The PP Team and the Information Technology Division have identified additional departments/divisions that could utilize Accela PERMITS Plus. Public Works needs to track sidewalk encroachment permits and fire hydrant permits. The Parks and Recreation Department would like to track tree removal permits, and special event permits. Other departmental needs are identified later in this document.



PERMITS Plus System Configuration

The current PERMITS Plus implementation consists of two major components. The first component is the PERMITS Plus application as originally sold by Sierra Computer Systems (now Accela). The second component consists of custom reporting created by the IT Division through the City's Intranet. These custom reports utilizes data housed in PERMITS Plus in conjunction with Adobe ColdFusion application development tools. ColdFusion software's main focus is the development of web browser based applications. West Sacramento utilizes ColdFusion to produce interactive applications for viewing and querying PERMITS Plus data and creating custom reports. The IT Division has assigned an IT Specialist/Programmer to be responsible for customization and development of ColdFusion tools to augment PERMITS Plus functionality. The process for the development of these tools is for users to identify needs not fulfilled by the PERMITS Plus application. These needs are documented and relayed to IT which then puts it into their work priority queue for creation.



During recent interviews, City staff stressed the importance of having an enterprise-wide permitting system. The ultimate goal is to have access to an application that allows a user to access all pertinent permitting and related data from a fully integrated database via an easy-to-use user interface. Additionally, staff stressed the need to have all of this data fully incorporated with GIS.

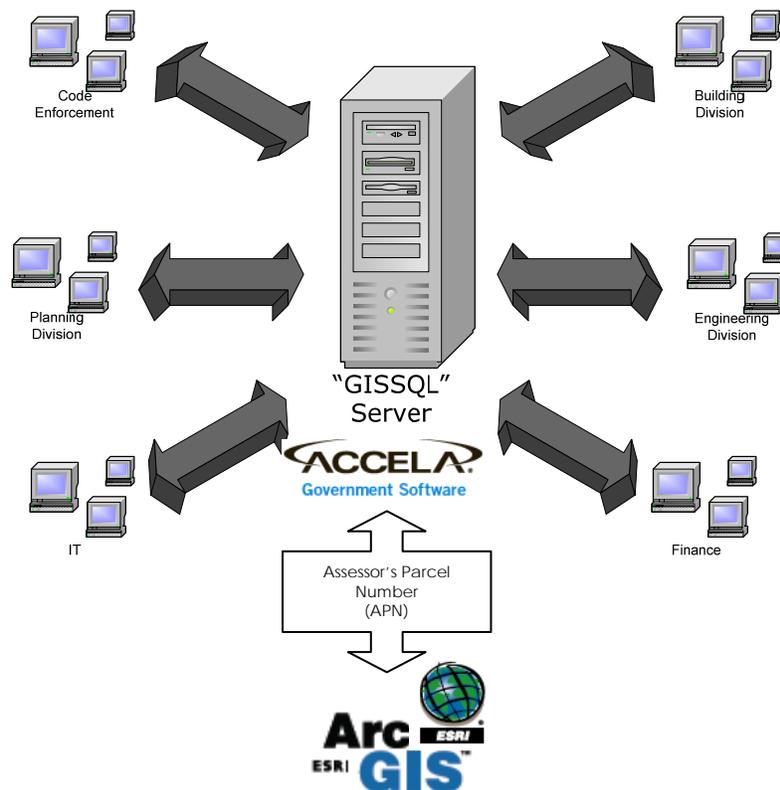


Current PERMITS Plus IT Architecture

Permitting data from Accela PERMITS Plus is stored in a common Relational Database Management System (RDBMS) format, utilizing Microsoft SQL Server 2005. Microsoft SQL Server 2005 is a comprehensive, integrated data management and analysis software that enables organizations to reliably manage mission-critical information and run increasingly complex business applications. The West Sacramento permitting data is currently housed on one (1) server, along with the City of West Sacramento's Geographic Information System

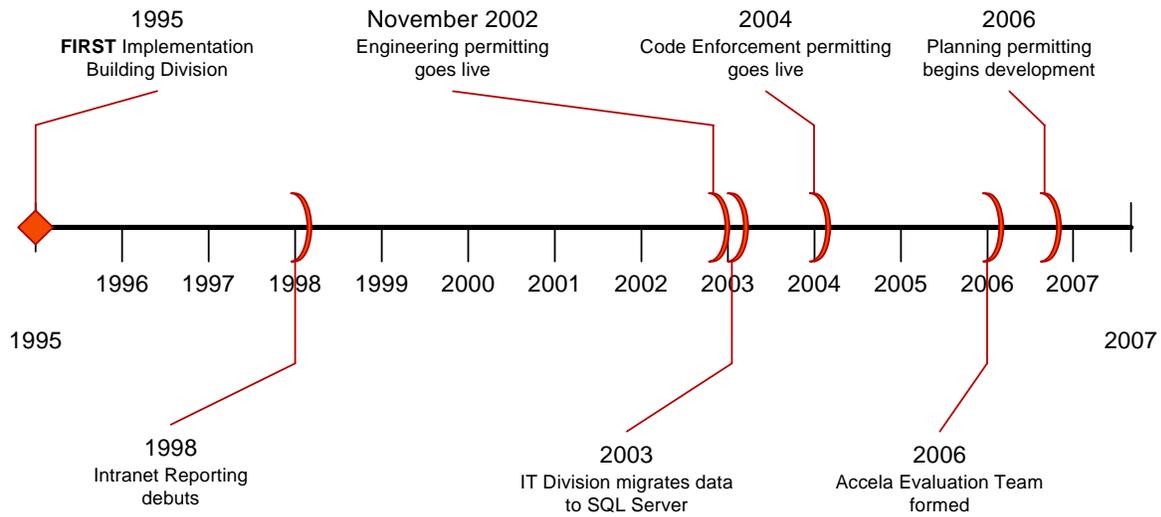
(COWSGIS) data. This is set up to allow the COWSGIS to compliment the permit data, and the permitting applications to utilize Geographical Information System (GIS) tools and analysis capabilities. The link between COWSGIS and Accela PERMITS Plus is the County Assessor's Parcel Number (APN). As one of the processes which creates new APNs, a developer first proposes new parcels through a land development review process with the City. Once the project is approved by the City, and recorded with the County Recorder, the County Assessor's Office typically takes three to six months to deliver a unique APN. During that time, the Drafting Services Section within Engineering digitize vector "container" layers using Autodesk AutoCAD software, based on projected digital submittals of the approved development project. Feature Manipulation Engine (FME) software is then used to migrate the CAD parcel drawing over to ESRI ArcGIS.

Once that is complete, Drafting Services staff input a temporary West Sacramento ID (WSID) to the corresponding field of the parcels GIS data layer. Up to this point, new land development areas do not have an "official" APN associated with them. The "official" APN is only inserted once the County Assessor's Office releases them up to six months later. During this time, only the official addresses, which were issued by the City for the new development, are used to track permits in PERMITS Plus. Once the new APNs are available, they are added to the PERMITS Plus system; then, staff must check each new APN, and attach the correct address to it within PERMITS Plus.



Current Database and Parcel Environment

The following graphic details the timeline for Accela integration to date for the City of West Sacramento.



PERMITS Plus Timeline

Chapter Two: Enterprise Permitting Needs

Current Usage Level



As previously documented, PERMITS Plus has been utilized by the City in excess of ten years. Its use has spread from a narrow focus in the Building Division to a more enterprise-wide usage by multiple departments/divisions. Some departments/divisions are utilizing the software and rely on its functions for many of their tasks. Others utilize the software to a lesser degree for some of their tasks. Yet others have needs that are not currently being met but are good candidates for inclusion into a permitting package.

- **Primary Users**

The Building, Engineering and Planning Divisions of the Community Development Department are the core users of the current software. The acquisition and expansion of PERMITS Plus originated from their business needs.

- **Secondary Users**

The Code Enforcement Division and the Finance Department also rely on PERMITS Plus. The tasks they accomplish with the software are not as intricate as those accomplished by the “Primary Users”. However, their tasks rely on data being housed in the software and will need similar and expanded functionality with PERMITS Plus or a replacement product.

- **Candidate Users**

Other departments and divisions identified needs that could be satisfied with an enterprise permitting system. Incorporating some of these needs into PERMITS Plus are being worked on now by the PERMITS Plus Evaluation Team (the PP Team), and IT staff. The following departments/divisions/programs have an identified need for the utilization of an enterprise-wide permitting system to include; Capital Improvement Program (CIP), Facilities and Equipment Maintenance Division, Fire Department, Parks and Recreation, Police Department, Public Works, Recycling and Refuse Management, and the Redevelopment Agency.

Levels of Users

Primary	Secondary	Candidate
Building Division	Code Enforcement Division	Capital Improvement Program (CIP)
Engineering Division	Finance Department	Facilities and Equipment Maintenance
Planning Division		Fire Department
		Department of Parks and Recreation
		Police Department
		Public Works
		Recycling and Refuse Management
		Redevelopment Agency

One of the major challenges faced with the current PERMITS Plus implementation is the time and effort required to develop and deploy applications needed by the “Candidate” users and new and improved functionality needed by the existing users. Based upon interviews with select City staff, departments/divisions identified frustration in the amount of time it

takes to fully deploy a PERMITS Plus solution for the identified business needs in the past, mostly based on an overall lack of staff knowledge about the system and its workings, and lack of staff resources to find the time to work on upgrades, enhancements, and added functionality. Since the hiring of the PP Team's consultant, IK Consulting, development of additional functionality is faster and more consistent. For instance, the Planning Department worked directly with the consultant for the last several months to develop the screens, scripts, and reports necessary to deploy their application, which should be in use by October 1st. As mentioned in the previous chapter, the PERMITS Plus consultant has been hired for another year, and will continue to upgrade, enhance, and provide added functionality for the Community Development Department, and other departments, with the guidance of the PP Team.



Enterprise Permitting Software Needs

The City of West Sacramento has implemented Accela's PERMITS Plus while providing additional functionality through customized applications and reporting. These implementations have successfully fulfilled some of the user needs. However, there is a list of additional needs and functions identified by staff. Some of these can be accomplished within the existing software framework. Other needs are beyond what can be accomplished with the current software.

Based on detailed interviews with multiple City of West Sacramento departments, **SEVEN CRITICAL NEEDS** were identified for any enterprise-wide permitting system utilized by the City. They are as follows:

1. MUST be **web-based** – the product should provide internal users access to data and functions via a web-browser. Additionally, the product should provide online citizen access for tracking permits, work orders, complaints, park reservations, special event permitting, etc. via the Internet.
2. MUST offer solutions **across the enterprise** – must be able to satisfy the needs of multiple departments in a common user-environment while optimizing data sharing and integration.
3. MUST include an integrated **wireless product**; - users need to access the systems via a wireless interface. This could manifest itself as web access via a laptop or handhelds for data entry and querying.
4. MUST be stored in **standard non-proprietary database**; recommended solution is **Microsoft SQL Server**; - the City utilizes Microsoft SQL Server as its primary relational database management system (RDBMS). Any system should utilize SQL Server as its RDBMS.
5. MUST **incorporate the City's existing data** - If the decision is made by the City of West Sacramento to select a new enterprise permitting solution then the new system must be able to incorporate all of the City's existing data currently housed within PERMITS Plus.
6. MUST facilitate the **integration with other enterprise systems**, such as Bi-Tech – any system must allow for integration points with other systems such as the financial system.
7. MUST have robust **GIS integration** – the system must allow for display of all data via a GIS data browser. Optimally, the system will have bi-directional capabilities that will allow the user to manage data on the GIS which in turn updates the permitting system without duplicate data entry.

While the above needs were found to be mission critical, other important functions were identified during interviews. Some involve physical IT infrastructure, like network and

hardware components, while others relate to additional software functions needed to improve business workflows.

The following comprehensive matrix incorporates all needs identified by each department and quantifies them based on priority. The highest priority items are the mission critical items identified above. Each need is prioritized by information gathered during the interviews and their criticality to a successful enterprise-wide permitting system. The following descriptions of the needs are grouped together based on their "Priority Score":

PRIORITY SCORE **10**

➤ Web-based with Centralized Management

The IT Division, the PP Team, and other City departments stated that any system must be web-based. Many systems did not provide this functionality a few years ago. Today, many major software providers like Accela and Municipal Software provide web integration as part of their core product. The product should provide internal users access to data and functions via a web-browser. Additionally, the product should provide online citizen access for tracking permits, work orders, complaints, park reservations, special event permitting, etc. via the Internet. The add-on module, Velocity Hall, is available from Accela for use with PERMITS Plus. This module could provide web-browser access to the PERMITS Plus system, as well as tracking of citizen complaints. However, the PP Team notes that this module may not provide as much flexibility as desired and other jurisdiction users of this module are not totally satisfied with its functionality and ease of use.

IT Division staff identified that in order to deploy any modifications to the City's current permitting software; they have to physically do an install on each computer. Optimally, the City's permitting software solution should have a centralized client-server topology model, where the vendor offers software deployment files in a MSI format (Microsoft Windows Installer installation package file). Windows Installer enables agencies to provide better corporate deployment and provides a standard format for component management. Under this structure, any updates and/or revisions to the software would be automatically deployed to each workstation that has the software, utilizing a temporarily elevated group policy (rule). As a result, IT would only have to install software modifications to the centralized server and not have to visit every workstation with the permitting software installed. The City of Santa Rosa is currently using this technology to deploy upgrades to their PERMITS Plus system with great success.

➤ Wireless Solutions

A great number of the City's departments/divisions expressed the need for access to a wireless version of the permitting software system. The divisions that would benefit most from a mobile product would be the Code Enforcement, Building, and Engineering Divisions. This could manifest itself as web access via a laptop or handhelds for data entry and querying.

The IT Division and the Building Department Inspectors are currently testing the Accela Wireless module's capabilities for providing future access to the PERMITS Plus system through wireless means. If testing is successful, the Building Department hopes to be wirelessly connected by the end of the year, and other departments could follow.

- Microsoft SQL Server RDBMS
The City has standardized on Microsoft SQL Server as its RDBMS of choice. SQL Server is not as expensive as other RDBMS options such as Oracle and is easier to manage. Wherever possible the City should acquire software that stores data in SQL Server.
- Mission Critical Integration with Existing Systems
The Finance Department and IT Division both expressed the mission critical need of maintaining the bi-directional link between the City's enterprise permitting software system and its existing SunGard Bi-Tech financial informational management system. Integration with other existing systems (Springbrook) will need to be considered.
- Incorporate the City's existing data
If the decision is made by the City of West Sacramento to select a new enterprise permitting solution then the new system must be able to incorporate all of the City's existing data currently housed within PERMITS Plus.
- Complaint Tracking and Work Order Component
Staff identified the need to track customer concerns and work orders within the enterprise system.
- GIS Integration
The system must provide GIS integration. Optimally, the system will have bi-directional capabilities that will allow the user to manage data on the GIS which in turn updates the permitting system without duplicate data entry. Accela offers a module called Accela GIS for these functions. However, the PP Team notes that a prominent local jurisdiction was not able to achieve a satisfactory GIS link with this module, and has since migrated to a different system.
- Enterprise-wide Solution
Staff identified that any enterprise permitting system must be able to satisfy the needs of multiple departments in a common user-environment while optimizing data sharing and integration.

PRIORITY SCORE 9

- Quality Assurance/Quality Control (QA/QC) of Data Input
Staff throughout the City articulated the need for the system contain the ability to offer QA/QC of data inputted into the application. Interviewed City personnel voiced concern over the current system's lack of QA/QC, stating that there were "too many cooks in the kitchen". Specific instances of having staff inputting inaccurate information into various activity fields, and also not having enough data input "masks", or templates that force the user to adhere to a prescribed character format or pull-down list. For example, addresses and APNs can be entered by multiple departments. Only a select few staff should have this capability.

The PP Team has identified, and continues to identify current QA/QC data input needs, and revise specific securities as possible to reduce or eliminate inaccuracies.

➤ Parcel (APN) Genealogy

The Planning Division and Redevelopment Agency both expressed a desire to track “parcel genealogy”, or the progressive status of a property. The typical parcel life-cycle goes from an undeveloped low number (if not one) of parcels, to many developed parcels within an approved and recorded plat/subdivision. The City’s enterprise database software system should be able to track this progress through a parent-child relationship within the parcel data table; by showing the different APNs a particular parcel has been assigned.

Each Database Location Record Should Include Parcel Genealogy:

One Agricultural Parcel:
1 APN
“046-260-16”

Residential Subdivision:
Many APNs
Lot 1 – “058-570-01”
Lot 2 – “058-570-02”
Lot 3 – “058-570-03”



Although PERMITS Plus has the ability to track parcel genealogy, this function is not currently being used. This function will start to be incorporated with the deployment of Planning’s functionality.

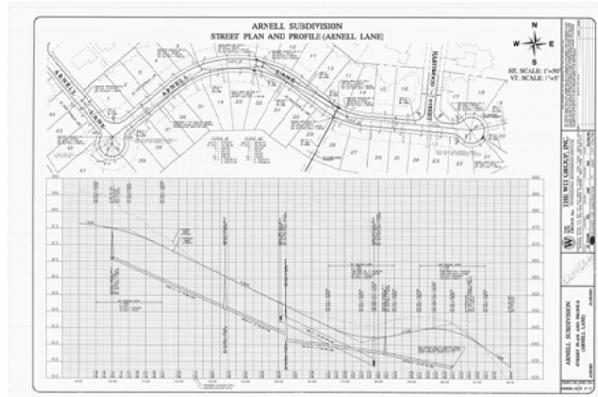
➤ Vested Fees

The Engineering Division and Finance Department requested that the system have the ability to lock in the vested fee structures for Vested Subdivision maps, and Development Agreements. Vested subdivision maps lock in their fees at the time that their application is deemed complete by the Planning Department. However, it may take several years for the developer to request a building permit for the construction of structures within the subdivision. Alternatively, a developer may “vest” a project through a Development Agreement, negotiated between the developer and the City, and approved by City Council. Either way, the vested fees are locked in as of the vesting date, or the date of approval of the Development Agreement, and may only be increased by a certain amount per year whereas the City’s normal fee structure may change or increase more rapidly.

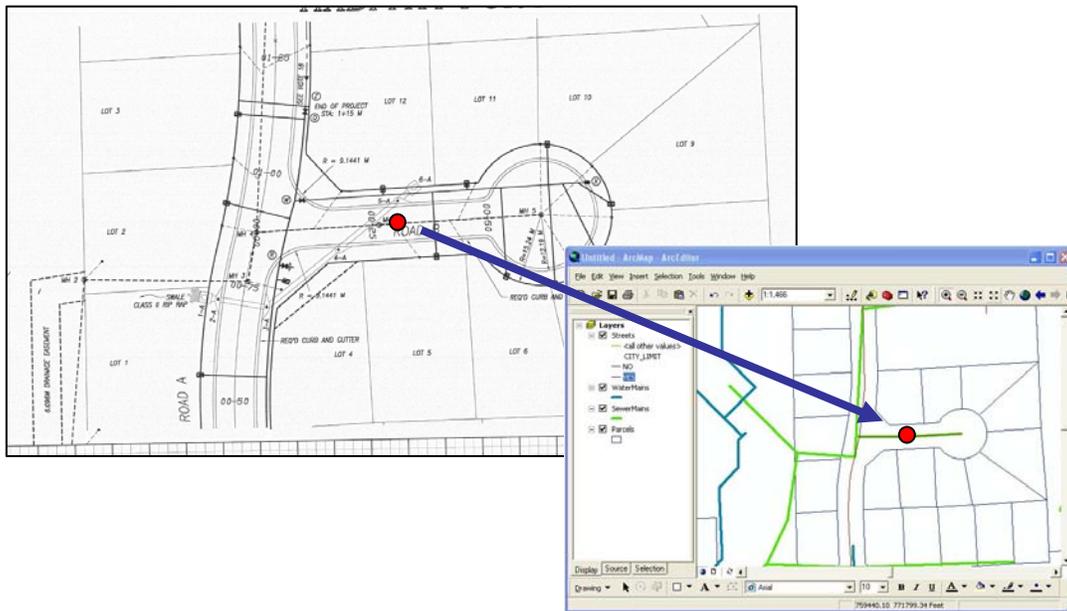
The current PERMITS Plus system does allow for the use of vested fees, but it is cumbersome and inefficient. Vested fees could be easier to manage and track if they were reconfigured in the system differently. The PP Team is investigating this task as a compliment to the future Engineering functionality proposed for the next year. Nevertheless, any permitting software should allow for easy management and tracking of vested fees.

➤ Hot-linked Scanned Plats

City staff voiced an interest in having the ability to quickly pull up the official scanned and recorded plat/subdivision of a particular location record, or APN. Whether the image files reside on a shared City network drive, or are pulled through the Yolo County Clerk-Recorder Office's online document search portal, the permitting software should have the capability of hot-linking subdivision and plat images. Optimally each of these documents will be linked to the GIS and can be retrieved based on their physical location.



Documents will be scanned for access within permitting system



Optimally each document will have a geographic link

Users currently have access to Office Link, which links documents and images to permits, projects, or developments within the PERMITS Plus system. While the City's current version of PERMITS Plus does not allow for the attachment of such documents and images to parcels (APNs), people, or addresses within the system, that functionality would be available with an upgrade to version 5.3.22.

➤ Username Stamp at Data Input

In accordance with multiple City department/division requests, it is paramount that the City's enterprise database software system has the ability to stamp which user has either created or modified an activity record. Staff noted that the City's current system does not have this capability.

➤ Public Works Sidewalk Encroachment Permits and Fire Hydrant Meter Permits

Fire hydrant meters utilized by contractors and developers to provide water during construction are not always being returned back to the City and/or are utilized much more than what is being paid for. The amount of the required deposit, approximately \$2,000, and the fees collected up front for water usage and rental costs, does not equate to the replacement costs of the lost meter and often their water usage exceeds their previous payment(s) to the City. Also, while the fire hydrant meters are in the field, the amount of water used is measured only at the meter. The usage rolls over to zero after reaching 99,999 cubic feet. Some meters are in use long enough for the meter to roll over. If this is not recognized, contractors and developers are not charged appropriately. If other City departments were aware of the location of the assets, they could assist Public Works and the Finance Department in reading the meters to ensure that water usage is paid.

Additionally, Public Works' Sidewalk Encroachment Permits look so similar to the Engineering Division's Encroachment Permits that there has been confusion among the public about who to call for each permit. Also, these permits are tracked in a separate Access database that the Engineering Division does not have access to.

Therefore, when Engineering Inspectors drive by sidewalk work that is occurring, it may take extra time to determine that the applicant has a permit from Public Works to replace the sidewalk.

The PP Team and their consultant, IK Consulting, has met with Public Works employees, and will be designing functionality within the system to track Public Works' Fire Hydrant Meter Permits and Sidewalk Encroachment Permits. Once implemented, those permits may be associated to particular developments, projects, and activities within PERMITS Plus, allowing other City departments to see that a hydrant meter is associated to a particular project, or that sidewalk work has been permitted at a particular address.

The PP Team has identified the Public Works permits for incorporation into the system with the next round of work to be completed by their consultant, IK Consulting. Such work may be ready for deployment by the end of this year.

➤ Additional Permitting Activities

These business workflows not currently tracked within the City's existing permitting software system were identified as being a high priority for implementation:

- Fire Inspection Permits
- Tree Removal Permits

➤ Custom Report Writing

A common theme throughout the interview process was a request for ad-hoc reporting capabilities. This feature would allow reports selected by manager, employee, project, permit number and geographic location. A fundamental need for a manager is the necessity to display reports with costs and hours. Reports would have the function of displaying month end, quarter end and year ending totals. Employees need the ability to create reports "on the fly" to meet various needs.

PRIORITY SCORE 8

➤ Calendaring

Staff throughout the City stressed the desire to have scheduling capabilities integrated within the City's permitting software system. Many software solutions offer tie-ins from their systems to an agency's existing email/calendar vendor, typically Microsoft's Outlook. For example, a code enforcement officer could have their daily activities automatically placed in their Outlook calendar. This feature is available in PERMITS Plus, but is not currently being implemented.

➤ Security Measures

The Code Enforcement Division of the Police Department emphasized the need for confidentiality in sensitive nuisance abatement issues. Currently different permissions within PERMITS Plus exist based on composition/activity types, and by specific User. Prior to the inception of the PP Team, securities within PERMITS Plus were very weak. As the Team gained understanding of the system securities available, they have updated individual and system securities to be appropriate.

➤ Linking of Documents

The IT Division has recently procured and implemented the "Office Link" module for PERMITS Plus. Office Link allows users to attach digital or scanned hard copy

documents and images/pictures to any activity, or to add a “pointer tag” to a document/image to tell PERMITS Plus where the document is located. These files are stored in a centralized network location. However, if files are “attached” to a PERMITS Plus activity, project, or development by the use of a pointer tag, users must be able to access that network location to be able to view the document or image.

➤ Improved Communication Across the Enterprise

Interviews identified some gaps in communication across departments and/or divisions. The City’s permitting software system must include the following to alleviate these issues:

○ *Activity Reminder Prompt:*

The Building and Code Enforcement Divisions specifically requested a reminder tool that would notify a reviewing party about action to be taken on an activity. This functionality would assist in avoiding delays in the review process of permitting activities, and could be added to PERMITS Plus.

○ *Automated Email Notification:*

Staff identified the need to automatically be notified of any status change to their activities. For example, if a supervisor changes the status of a case, pertinent staff would be automatically notified. This functionality could be added to PERMITS Plus, especially for use with Accela’s Workflow module.

➤ Court Hearing Materials

The Director of Code Enforcement stated that he has the need to access data for a court case immediately – sometimes off-site. Quick local and remote access to pertinent court case material would be a major benefit during court cases.

➤ Use Microsoft User Tracking Capabilities

By utilizing Microsoft Active Directory, the City’s permitting software could utilize user’s Windows login information like username and password. This would eliminate the need for multiple logins. Current end-users of PERMITS Plus stated that it was problematic to remember different usernames and passwords and desired integration between the two systems. Although this can be done with the current system, the PP Team’s PERMITS Plus consultant cautions that this could jeopardize securities in the PERMITS Plus system. For instance, if a supervisor’s computer is left logged in and unattended, anyone that uses it then has the entire supervisor’s PERMITS Plus securities.

PRIORITY SCORE (7)

➤ Balanced Workload Management

Managers need to prepare a daily task list for each inspector or officer. This information should be housed within the enterprise software. There is a desire to optimize the daily workload based on geographical proximity of each task. This would assist in balancing workload and optimizing resources. As mentioned previously, PERMITS Plus has the capability to maintain and manage calendars for various uses, primarily scheduling inspections. Geographical inspection areas can be incorporated into such calendars. While there are no calendars currently in use in the system, the PP Team and their consultant have discussed enhancements of the PERMITS Plus system for Code Enforcement, including the use of calendars. Such enhancements may take place within the next year.

➤ Letter Writing

Automated letters generated from the permitting software would assist with nuisance abatement issues, land development, permit rejection and area notifications. Letter templates in the application should be flexible to allow customization of addresses, names, dates, and representative City personnel.

➤ CIP, Development, Redevelopment, and Parks Project Tracking

CIP, Development, Redevelopment, and Parks project tracking is needed to ensure that staff are aware of projects being performed by other departments. This will assist in preventing current projects conflicting with future improvements and projects of other departments. Lack of knowledge about past, current, and future projects has caused the City management and efficiency problems. For instance, landscaping trees had been approved and planted by the City just before a large road expansion project was to begin. The road expansion project necessitated the removal of the trees. GIS has been identified as a priority method of tracking these projects. However, information linked to the enterprise software will provide another failsafe and can potentially identify potential conflict for staff not utilizing GIS frequently.

➤ Bond Tracking and Release

Developers expect payment from bonds to be released on the day they are due. The Finance Department would like to be proactive in releasing these funds. Optimally, Finance would be noted automatically when a bond should be released. This could manifest itself as a calendar item and/or an email. This function should be part of an enterprise permitting system.

Both Engineering and Finance discussed that bond tracking was very important, but the types of bonds each department tracks and releases are different, and require different tracking methods. Finance only releases “bonds” for construction payments. Such release requires the Engineering Division to review and approve the release request by a developer, and cannot in all cases be “released on the day they are due”.

Bonds are required of developers to guarantee the proper construction of the improvements they will dedicate to the City. The Engineering Division releases these bonds once improvements are accepted by the City, and at prescribed other times during the improvement construction period. These bonds could be tracked by PERMITS Plus, and calendared to trigger release at the appropriate times. This functionality will be built into the system during enhancements for the Engineering Division to track subdivision projects, and should be available within the next year.

➤ Special Event Permits

The need for additional permitting activities was documented as a priority nine need. However, special events permitting have fewer instances and require a more formalized process of review which is currently managed on paper.

PRIORITY SCORE 6

- Canned Reports
Users articulated the need for canned reports for repetitive tasks. Although custom reports were deemed more important, common reports will meet many users' needs.
- Reports by Geography
The need for GIS integration was already identified. Once permitting data is available via GIS, users can then run reports by geography such as neighborhood or distance from another geographic feature.
- Complaint Tracking Module
Staff expressed the desire to track citizen complaints within an enterprise system. Calls from citizens are received and passed to the appropriate personnel; these complaints are not tracked by software. It would be beneficial to have an integrated complaint tracking system that tracks each complaint to its final resolution. Open complaints would be elevated to other employees and supervisors if they are not resolved. Staff could quickly ascertain the status of any given complaint. Additionally, each complaint can be mapped via the GIS to view patterns and optimization of resources.

The chart on the following pages is a summation of all of the outlined needs and the departments that are impacted by each need.

City of West Sacramento													
DEPARTMENTS / DIVISIONS / PROGRAMS													
IDENTIFIED NEEDS	Priority Score	Building Division	Engineering Division	Finance	Fire HAZMAT	GIS	Information Technology	Parks and Recreation	Planning Division	Police (Code Enforcement)	Public Works	Redevelopment Agency	Tree Program
Web-based with Centralized Management	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Wireless Solutions	10	✓	✓		✓	✓	✓		✓	✓	✓	✓	✓
Use Microsoft SQL Server RDBMS	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Incorporate the City's existing data (if select new software provider)	10	✓	✓	✓ (Impact Fees)					✓	✓			
Mission Critical Integration with Existing Systems	10			✓									
Complaint Tracking and Work Order Component	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GIS Integration	10	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Enterprise-wide Solution	10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
QA/QC of Data Input	9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Parcel (APN) Genealogy (within permitting system)	9								✓			✓	
Vested Fees (frozen based on initial submittal date)	9	✓	✓	✓				✓	✓	✓	✓		
Hot-linked Scanned Plats	9	✓	✓		✓	✓	✓		✓		✓	✓	
Username stamp during data input (Who's done What)	9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Public Works Sidewalk Encroachment Permits and Fire Hydrant Meter Permits	9		✓								✓		
Additional Permitting Activities	9				✓				✓				✓
Custom Report Writing	9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Calendaring (Deadlines and Schedule Inspections)	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

City of West Sacramento													
DEPARTMENTS / DIVISIONS / PROGRAMS													
IDENTIFIED NEEDS	Priority Score	Building Division	Engineering Division	Finance	Fire HAZMAT	GIS	Information Technology	Parks and Recreation	Planning Division	Police (Code Enforcement)	Public Works	Redevelopment Agency	Tree Program
Security (internal permissions and external)	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Document and Photo Linking	8	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
Activity Reminder Prompt (e.g. 30 days after 1 st inspection)	8	✓	✓		✓				✓	✓	✓		✓
Automated Email Notification (Open/Close status)	8	✓	✓	✓	✓			✓	✓	✓	✓		✓
Court Hearing Material Preparation	8	✓								✓			
Use Microsoft Login (MS Active Directory)	8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Balanced Workload Management	7	✓	✓						✓	✓	✓		
Letter Writing (automated)	7	✓	✓	✓	✓			✓	✓	✓	✓		✓
CIP, Development, Redevelopment, and Parks Project Tracking	7	✓	✓	✓				✓	✓		✓	✓	✓
Bond Tracking and Release in Calendar	7	✓	✓	✓					✓		✓	✓	
Special Event Permitting	7		✓	✓	✓		✓	✓	✓	✓			
Canned Reports	6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Reports by Geography	6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Complaint Tracking Module	6	✓			✓	✓		✓		✓	✓		



Existing Challenges

The following are existing limitations that were voiced by West Sacramento staff. Some of these are limitations of the software, while others can be accomplished by the software but have not been implemented.



Continued Use of Outside Tracking Methods

Staff are still conducting tasks outside of PERMITS Plus that should be conducted within an enterprise-wide permitting system as follows:

- The Planning Division currently tracks projects manually with Microsoft Word, Excel and paper notes; (the Planning Division will be on PERMITS Plus October 1, 2007)
- The Building Division sends paper confirmation forms to other divisions to confirm building permit finals and certificate of occupancy approvals as a back-up to approvals entered into PERMITS Plus because approvals are not entered consistently;
- Development Engineering staff still calculate impact fees manually through excel spreadsheets to double check all fee calculations due to previously identified errors in PERMITS Plus;
- Public Works does not currently use PERMITS Plus to issue encroachment permits for the sidewalk repair program, thus causing confusion for field inspections; this will be corrected within the next year by adding Public Works to the PERMITS Plus system;
- The Community Development and Finance Departments currently have problems with the fee reconciliation reports, resulting in additional time spent manually inputting or correcting data.



Lack of Security for Confidential Documents

Different permissions within PERMITS Plus exist at several levels including the department level, and the individual level. The Code Enforcement Division of the Police Department emphasized the need for confidentiality in sensitive nuisance abatement issues. The PP Team continues to update system securities as possible when additional security issues arise.



Vital Information is Not Readily Available to Users

The miscellaneous note field within PERMITS Plus is open for general comments. Users use this field to input various notes. This field often contains important information about a case. Often these comments are ignored as the permit moves from issuance to closure. Staff expressed a desire for this information to be more prominent and made to fit within the permitting workflow in a more coherent manner.



Permits Sit Idle

PERMITS Plus does not automatically notify the next authority when it is time for their review in the workflow process. As it stands now, the current "owner" of the permit within the system must manually leave a voicemail or email message for the next review party. A permitting application with the capability of automatically notifying the next user in the process would greatly assist in reducing staff time. This could be corrected with the use of the Workflow Module.



No Project Status Notifications/Lack of Communication

When infrastructure improvements and/or changes are made, oftentimes key staff is not notified. The Planning Division does not receive notification when final maps or improvement plans have been submitted to other agencies. The Fire Department has consistently been left out of the notification process in regards to changes in parcel and/or building conditions. As a result, notification and coordination between the departments/divisions has continually been an issue. Currently, the permitting software does not offer adequate workflow processes during the CIP, development, and/or redevelopment approval process. The design and review of these projects have various time sensitive steps. When proper notification is missed the process often does not receive adequate oversight. Staff feels that these processes can be better modeled within a permitting software package.



Noncompliance with Digital File Submittal Format

The City has established a digital submission policy for surveyors/engineers/developers. However, developers are not always submitting developments in the required digital format. Optimally, PERMITS Plus would have a placeholder for information as to when or if the developer submits the proper digital Computer-Aided Design and Drafting (CADD) drawing. Optimally, the proper file would then be linked to the record in PERMITS Plus.

This digital submission approval step could be incorporated into the design of the Engineering Division's "project level" tracking within PERMITS Plus, to be available within the next year.



Incorrect Input of Addresses

As is typical with any enterprise-wide system, consistent land based data (addressing and parcel numbers) can be an issue. Any system needs to have a master "land file" that is maintained by a select few gatekeepers. These gatekeepers are the only ones that can enter a valid address record. These validated land records are then used in pick lists as the only valid addresses. Previously, an issue with the current system was the amount of users allowed to create new records within the PERMITS Plus system. The users creating those new records were not governed by a master pick list of valid addresses. Therefore, records were being added without any addressing standards, resulting in addresses being entered in numerous ways. This made querying records by address an almost impossible chore. It is recommended that address management be limited to a few gatekeepers and that this information is managed within PERMITS Plus, with a GIS link. The PP Team, the Drafting Services Division, and the GIS Specialist have begun to normalize street names and addresses in PERMITS Plus and implement a link between the address master file and GIS. Interim gatekeepers have been selected, and securities are now in place to limit users' abilities to add or modify address and street name records. Currently, addresses are assigned by the City, with landlords assigning fractional addresses, resulting in inaccuracy and inconsistency. Addresses and fractionals must be incorporated by the addressing gatekeeper(s) in order to establish consistent address records.

City staff noted that keeping the parcel and address data current and correct within PERMITS Plus will be an on-going, time-consuming task. At this time, staff feels that they do not have adequate staff resources to perform these functions adequately.

Lack of Wireless Connection

Building and Engineering inspectors do not have wireless access to PERMITS Plus when they are in the field, thereby limiting their use of the system. The City's enterprise database software must offer a wireless product specifically engineered for the field.

Need More Robust Reporting

The out-of-the-box reports available with PERMITS Plus are not sufficient for most users. Therefore, personnel must request that the IT Division to develop and deliver various reporting functions. During interviews, multiple City staff members stressed the importance that the City's permitting software needs to include more robust bundled reporting and easy to create custom reports.

Additional Financial Functionality

Currently, the PERMITS Plus system is directly linked to the SunGard Bi-Tech financial and administrative software within the Finance Department. If any fee is outstanding, PERMITS Plus will not allow the issuance or closure of permitting activities which has financial ramifications. Staff stated that the system needs to allow for exceptions to this rule for both the issuance and closure of a permit.

The PERMITS Plus system should be modified to all for the issuance or closure of activities while fees are still outstanding.

California Environmental Quality Act of 1970 (CEQA)

The Planning Division expressed concerns about the timing of receipt of comments involving the California Environmental Quality Act of 1970 (CEQA) regulations. City Planners desire that the City's permitting software system have the ability to instantly notify them of any CEQA comments.

The following additional limitations were identified by the PERMITS Plus Evaluation Team:

 PERMITS Plus is not web-based; the program is installed on each individual user's computer with individual settings; thus maintenance is cumbersome and time consuming.

 Mobile users must download and upload files each day; cannot initialize new cases or inspections in the field.

 Wireless linking ability is at a basic level and has limitations. Limitations include LAN coverage, significant costs for wireless service and equipment, and potential SQL password issues.

 Online citizen access to limited permit/application information does not function properly on the City's website; issues with identification of fields to be viewed and security. Office Link attachments may not be viewed through the website.

 GIS Linking is questionable; Accela GIS does not support the latest ESRI technology.

-  Asset management is not provided.

Existing Successes and Capabilities

The implementation of PERMITS Plus has been successful. In 1995, the City of West Sacramento began implementing PERMITS Plus software from Sierra Computer Systems (now, Accela) to track permitting and other land activities. Prior to implementation, staff stored building permit data within a Microsoft Access database. The initial implementation was conducted for permit tracking within the Building Division. This accomplished the goals of implementing a computer based permitting system and facilitating the improvement of the City's building permit process. Over time system usage was expanded to incorporate the needs of other departments. PERMITS Plus was robust enough to incorporate many of these needs. The following are some of the major capabilities of PERMITS Plus as identified by the PERMITS Plus Evaluation Team:

-  Building, Engineering, Public Works, and Code Enforcement permit/case issuance and tracking.
-  Planning project tracking; information inheritance capabilities all the way from development to building permit, including fee vesting date information.
-  Mobile capabilities for inspections and code enforcement cases. (Not currently implemented at West Sacramento)
-  Wireless linking ability for inspections and code enforcement in field (basic); beneficial for mobile use.
-  Office Link functions to allow for attachment of photos, staff reports, conditions of approval, mitigation monitoring plans, etc. to applications and parcels. (Currently purchased by the City and may need more widespread use)
-  Calendar functions to allow for scheduling of inspections and various committee/commission meetings. (Not currently being used)
-  Workflow capabilities to allow managers to track applications and permits through the approval process.

Chapter Three: Recommended Solutions

As discussed earlier in this document, West Sacramento has implemented Accela's PERMITS Plus with intranet customizations by the IT Division, and PERMITS Plus changes by the PERMITS Plus Evaluation Team (the PP Team), and their PERMITS Plus consultant, IK Consulting. Multiple departments/divisions are utilizing the software for numerous activities. Based on experience and hundreds of case studies and site visits, no organization is fully satisfied with their enterprise permitting software suite. It is natural for an organization to want additional functionality to incorporate additional business flows and needs. This is what drives software companies to continue to add functionality to their products. Therefore, it is important for all West Sacramento staff to understand that there is no software application that will satisfy all the needs that have been identified. Additionally, even if a new software solution is acquired their will be staff not satisfied with the result. Because of the complexity of local government, no company can create a software package to fulfill 100% of users needs. Therefore, the City must look for the best 90% solution. This report has focused on seven critical needs that must be in place and numerous other desired functions. To recap the seven critical needs are as follows:



MUST be **web-based** – the product should provide internal users access to data and functions via a web-browser. Additionally, the product should provide online citizen access for tracking permits, work orders, complaints, park reservations, special event permitting, etc. via the Internet.



MUST offer solutions **across the enterprise** – must be able to satisfy the needs of multiple departments in a common user-environment while optimizing data sharing and integration.



MUST include an integrated **wireless product**; - users need to access the systems via a wireless interface. This could manifest itself as web access via a laptop or handhelds for data entry and querying.



MUST be stored in **standard non-proprietary database**; recommended solution is **Microsoft SQL Server**; - the City utilizes Microsoft SQL Server as its primary relational database management system (RDBMS). Any system should utilize SQL Server as its RDBMS.



MUST **incorporate the City's existing data** - If the decision is made by the City of West Sacramento to select a new enterprise permitting solution then the new system must be able to incorporate all of the City's existing data currently housed within PERMITS Plus.



MUST facilitate the **integration with other enterprise systems**, such as Bi-Tech – any system must allow for integration points with other systems such as the financial system.

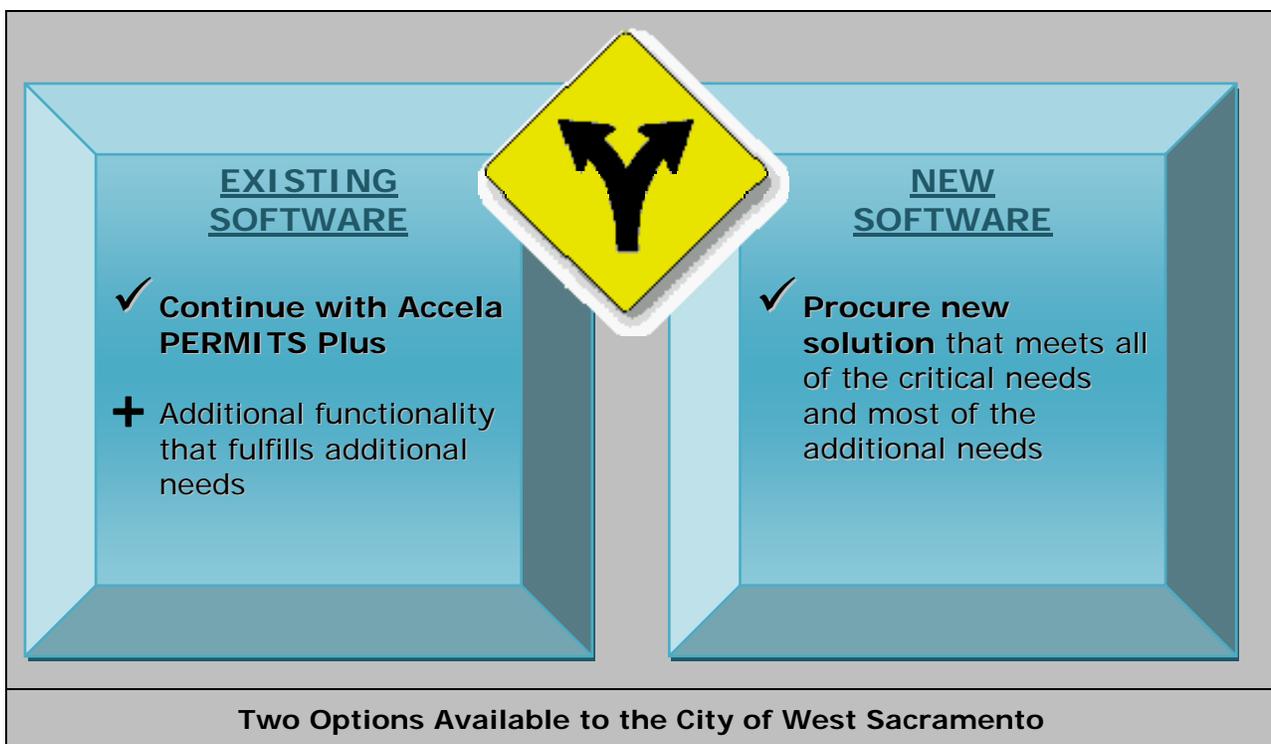


MUST have robust **GIS integration** – the system must allow for display of all data via a GIS data browser. Optimally, the system will have bi-directional capabilities that will allow the user to manage data on the GIS which in turn updates the permitting system without duplicate data entry.

West Sacramento is at a crossroads. Two options exist. The first option is to stick with PERMITS Plus and create or acquire as much of the needed functionality as possible. The

second option is to create a Request for Proposals (RFP) and acquire a new software package that meets as many of the documented needs as possible. Each one of these scenarios has positives and negatives and will be discussed in detail in this chapter. The two options are as follows:

- 1) **Existing Software Option** (Less Expensive)
 - Stay with Accela’s PERMITS Plus and procure/create additional functionality to meet some of the additional needs as detailed in Chapter Two of this report
 - Estimated cost \$100,000+
- 2) **New Software Option** (More Expensive)
 - Go with a new solution that meets all of the critical needs and most of the additional needs
 - Estimated cost range of \$100,000 to \$1,000,000+



Existing Software Option

Currently the City of West Sacramento is using Accela’s PERMITS Plus as an enterprise solution for various permitting and inspection activities. The PERMITS Plus software application has been the core product provided by Accela. Accela has been a provider of government enterprise software solutions for over twenty-five years. Accela products are touted as allowing agencies to reduce workload, increase efficiencies, and provide citizens and businesses with easier, more convenient access to government services.

PERMITS Plus has met the needs of West Sacramento over the past decade. However, what started as one division’s desire to manage permits has evolved into an enterprise-wide permitting package. Staff has identified many additional functions that would improve the utility of the software. Some of these needs have been satisfied through the acquisition of

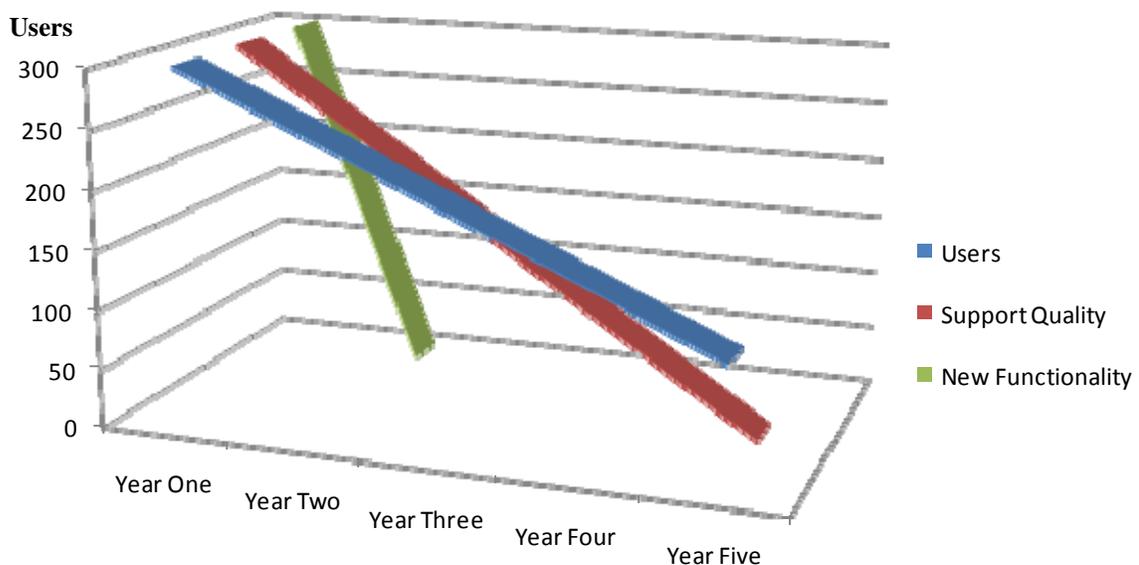
add-on modules (Office Link) or by programmatic additions by IT staff (custom reports and intranet data access). There are some reasons that keeping PERMITS Plus makes sense for the City as follows:

- City staff are familiar with the use of the product
- IT staff, the PP Team, and the PP Team’s consultant, know the application in detail and can provide additional functions
- The product is in place and has been paid for, but additional modules may need to be purchased to meet certain needs
- Additional capabilities are possible that meet some of the City’s identified needs

However, there are valid reasons that the City might consider not moving forward with PERMITS Plus as follows:

- The product is no longer the primary Accela product – PERMITS Plus is no longer advertised on Accela’s web page. The next generation product Accela Automation has taken its place.
- Due to the previous point, support will decline over time as the user base shrinks
- New functionality for PERMITS Plus will become less and less of a priority for Accela as more users migrate to Accela Automation. Development resources will be applied to the new product.
- Many of the additional needs identified by staff will require custom programming or may not be attainable
- Intense IT support time for upgrades and system maintenance

Accela’s official stance on PERMITS Plus is that they will continue to support the product as long as they have a user base. Accela now calls the product their “Classic” product. PERMITS Plus could be maintained and has an estimated additional five years of viability. At that time, all improvements to the product by Accela will likely have been discontinued and quality of support will continue to decline. The following graphic depicts how a software company’s software improvements and support decrease as the user base decreases:



Support and Software Upgrades Decrease as the User Base Decreases

The following matrix identifies PERMITS Plus' ability to meet the seven identified critical needs for an enterprise permitting software application.

 PERMITS Plus "THE SEVEN CRITICAL NEEDS" Analysis		
1	MUST be web-based (Accela has a module, Velocity Hall, for making PERMITS Plus web-based)	 Velocity Hall or developed in-house
2	MUST offer solutions across the enterprise	 Only partially Meeting City's needs
3	MUST include an integrated wireless product – being tested in-house now	 (Accela Wireless add-on)
4	MUST be stored in standard non-propriety database ; recommended solution is Microsoft SQL Server	
5	MUST incorporate the City's existing data – more modules to be added to house all data	
6	MUST facilitate the integration with other enterprise systems	
7	MUST have robust GIS integration	

PERMITS Plus is the lowest cost option for the City. However, the software may not adequately fulfill all of the critical needs as indicated above. Additionally, much of the additional functionality identified by staff would require additional programming or would not be attainable. A comprehensive matrix at the end of this chapter documents the ability of PERMITS Plus to meet the additional needs of the City. Accela has been offering a license upgrade credit program for clients wanting to move from PERMITS Plus to Accela Automation. Accela staff indicate that this offer will be valid for the short term and a formal discontinue date will be announced at least by the next user's conference.



PERMITS Plus[®] by Accela

Contact: Tracey Reliford
treliford@accela.com
 (916) 477-9005



New Software Option

Based on the information discussed in the previous section, West Sacramento will need to consider the acquisition of a new software package as an enterprise permitting system. The City should create a Request for Proposal (RFP) or Request for Qualifications (RFQ) based on the needs identified in this document. The evaluation process should involve a series of vendor presentations at City Hall for staff to understand the functionality and limitations of the possible software options.

Ten of the top enterprise-wide permitting software companies were identified and contacted for this report. They were asked to provide information on their software, client references, fill out a functionality questionnaire, and to provide rough pricing. The ten software vendors are as follows:

Software Name	Provider Name
PERMITS Plus	Accela
Automation	Accela
CityView	Municipal Software
EnerGov .NET	EnerGov Solutions
Plus Series	SunGard Pentamation
Vadim Software	Star Municipal Technologies
PTWin32v2 software	Black Bear Systems
PG Govern Software Suite	PG Govern
HdL Software Suite	The HdL Companies
asyst Product Line	United Systems Technology
Hansen Suite	Infor

Each of these software vendor’s capabilities will be discussed individually in the remainder of this chapter. A brief overview of the software will be provided in this chapter and a full detailed look at their advertised functionality is provided in Appendix I.

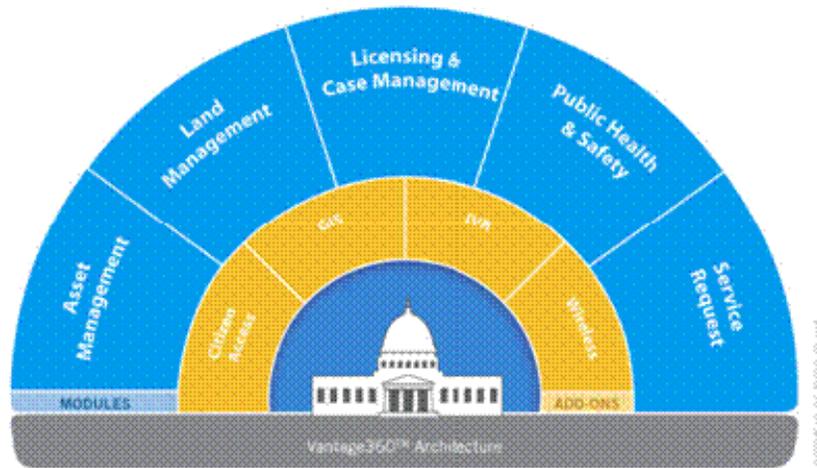


Automation[®] by Accela

Contact: Tracey Reliford
treliford@accela.com
 (916) 477-9005

Accela Automation provides organizations a solution to automate workflow, forms management, activity tracking, cashiering, and other daily tasks. A centralized database allows governments to share information across departments and easily configure application types, business processes, fees, and reports to match an agency’s practices. As indicated by the below graphic the product is modularized as follows: Asset Management, Land Management, Licensing and Case Management, Public Health and Safety, and Service Requests. Additional “add-ons” include: Citizen Access, GIS, IVR, and Wireless.

Proven Government Enterprise Software
Accela Automation®. Complete Solution



The Accela Automation Product Line

Proven Government Enterprise Software

The Presentation Layer: SmartCharts™ Portlet

View your data at a glance:

- Provides graphical representations of data, easy-to-use charts and line graphs
- Requests key performance metrics



The foundation of the product is the Accela Vantage360 Architecture. Vantage360 is touted as integrating data access and user preferences into a single interface—the Vantage360 console. End-users can personalize their console from a list of “portlet”, or business functions, and display only the information they use on a daily basis. This allows each user to view information in a way that best serves their way of interacting with agency data.

Various Portlets are Available to Users

Automation offers other functionality that is important to West Sacramento users as follows:

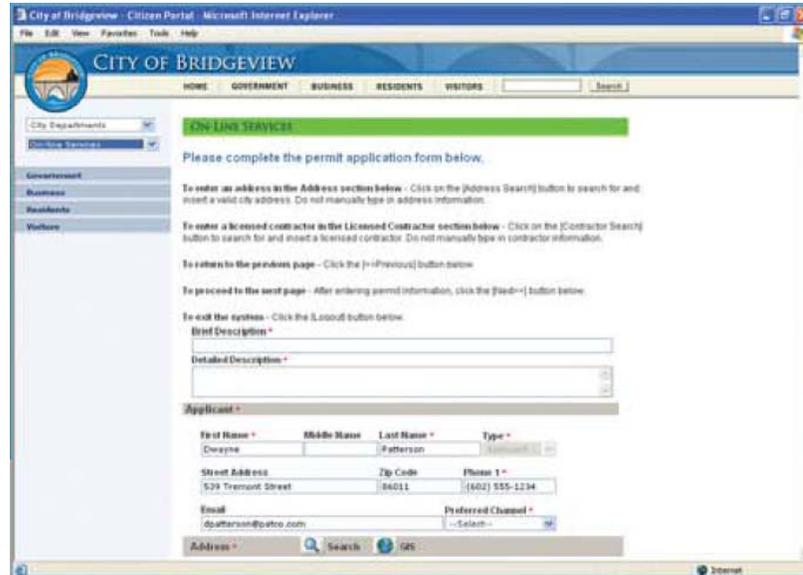
Document Service	Provides the ability to attach files to data records such as applications, inspections, and service requests
GIS Integration list	Any list portlet that contains address information can utilize Accela GIS to geospatially display addresses for end-users
Auto-Alerts	Alerts based on business rules notify end-users of further action that needs to be taken to process or complete an application
IntelliScript™	A scripting tool for creating step-by-step information gathering or business processes – used for training new employees or interacting with citizens for on-line service request submission and other on-line tasks
Data Filters	All list portlets provide data filters so administrators can limit the information end-users can see by role



QuickQueries™	End-users can determine what information they want to see by utilizing QuickQueries that enable them to define and save frequently used queries
Report Manager™	Provides robust reporting capabilities with flexible formatting capabilities to produce professional, printed reports, complete with color graphics and charts. The application also provides reporting via Oracle Reports as well as ODBC-compliant report tools for self-hosted customers.
SmartCharts™	Provide at-a-glance, summarized business information so end-users can view actionable data and take steps to improve agency operations
Workflow	A powerful workflow manager that administrators configure with prerequisite tasks, parallel tasks, etc. and assign workflows to specific application types, service request types, etc.
Event Manager	Executes event-based processes such as generating e-mail messages or calling external systems

Of importance to West Sacramento are some of the modules as follows:

- **Asset Management** - tracks and manages assets and resources, providing an automated solution for costing, inventory, maintenance, investigations, and inspections. Can be utilized to manage fleet, street, water, wastewater, parks and recreation, plant and facilities, sewer, railway, and roadway.
- **Land Management** - tracks and manages all land use and community development activities including permits, building safety, inspections, investigations, and reviews, zoning, project plans, and code enforcement. It allows city staff to have access to input data, verify activities, check permit status, and obtain complete parcel information instantly.
- **Licensing and Case Management** - automates the licensing, registration, and permit application and renewal processes, including individual and business licenses, simple and complex registrations, occupational licensing, establishment and work permits, or any other licensing procedure.
- **Service Request** - manages interdepartmental or citizen service requests, complaints, or inquiries.
- **Citizen Access** – Accela Automation data and processes available via the web for the citizens.



Citizen Access Module

- **GIS** - gives staff direct access to view geographic representations of all land use, zoning, and infrastructure information associated with a parcel, permit, inspection, or plan. Accela GIS integrates with Accela Automation to provide visual analysis of land-use, zoning, and infrastructure data. It allows for the creation of multiple map layers, automated map analysis, parcel and asset inventory management, direct editing of GIS data or files, and auto-distribution of information to mailing lists. It is built on the ArcIMS platform by ESRI. Of note, ArcIMS is being discontinued by ESRI – an ArcServer solution should be required by West Sacramento.
- **Interactive Voice Response** - an interactive voice response system, provides customers with 24-hour access to permit and inspection services. Staff and citizens can request, check, and verify permit applications and inspections from a touch-tone phone, at any time.

The following matrix identifies Accela Automation's ability to meet the seven identified critical needs for an enterprise permitting software application. An additional functionality table, detailing user needs, is provided at the end of this chapter.

		Automation "THE SEVEN CRITICAL NEEDS" Analysis
1	MUST be web-based	
2	MUST offer solutions across the enterprise	

 Automation "THE SEVEN CRITICAL NEEDS" Analysis		
3	MUST include an integrated wireless product	 (Accela Wireless add-on)
4	MUST be stored in standard non-propriety database ; recommended solution is Microsoft SQL Server	
5	MUST incorporate the City's existing data	
6	MUST facilitate the integration with other enterprise systems	
7	MUST have robust GIS integration	

The following is an order of magnitude pricing table. The pricing should be utilized as a guideline but is not an official quote from the software company.

 Accela Automation® Pricing	
CORE MODULES:	
Total Quote *	\$ 289,000
LESS Credit for Migration from 'PERMITS' Plus	- \$ 86,000
Modules Total	\$ 203,000 **
OPTIONAL ADD-ONS:	
Citizen Access [based on City population]	\$ 15,000
Accela GIS [based on estimated # of users – 125]	\$ 34,000
Interactive Voice Response (IVR) [based on estimated # of users – 125]	\$ 34,000
Wireless (mobile product)	\$ 65,000
NOTES:	
* Quote was verbal description of a hard-copy version delivered to City of West Sacramento	
** Installation, Configuration, and Training included	
*** Prices differ from a quote received by West Sacramento staff that was in excess of \$1,000,000. Various customizations and services made up the bulk of the difference.	

The case study is taken from Accela's web page detailing successes experienced with their software by other clients:

CASE STUDY: Powerful Solution Streamlines and Automates License and Development Processes



Customer

Kirkland, Washington

Population
45,000

Location
Located in the high-tech Puget Sound region, and 11 miles northeast of Seattle

Quote

"In our area I think that our customers have pretty high expectations that they should be able to use the Internet for a great deal of things — regardless of whether its business or government."

Ken Carlson
Building Official & Fire Marshal

CASE STUDY

Powerful Solution Streamlines and Automates License and Development Processes

Kirkland responds to citizens' desire for e-government

Kirkland, Washington is home to approximately 45,000 citizens in the tech-savvy Puget Sound area. In 1986, the City made the switch from a paper-based process to an electronic system to manage and track its services but the City didn't stop there. Instead of just jumping on the technology bandwagon, Kirkland is leading it. Its innovative use and improvement of technology serves as an example for others and is leading to a new way governments operate around Puget Sound.

THE CHALLENGE

Finding it difficult to track information, interpret data, and consistently encountering inequities in fee calculations, Kirkland realized it was time to eliminate their manual, paper-based system. The City began its search for an automated solution, specifically seeking out a company with a proven track record and client base, as well as one that was innovative enough to foresee future demands.

THE SOLUTION

In 1986, Kirkland's City Clerk's office began using Accela's Tidemark Advantage™ for Business Licensing. Today, the business licensing responsibility has shifted to the Finance department, and the City now issues approximately 8,000 permits and licenses each year.

"The department uses a batch process to streamline license renewals which saves significant staff time. In addition, our customers and citizens have on-line access to business license information with the Advantage eConnect™ solution," says Ken Carlson, Kirkland's Building Official & Fire Marshal.

With Advantage, data inconsistencies are no longer an issue, and all information can easily be tracked. Information became standardized and centralized, allowing the City to expand its use of the product and begin building its enterprise system. The Development Review Departments (Building, Fire Prevention, Public Works and Planning Departments) implemented the system in the early '90s.

Kirkland's vision of an enterprise system enables multiple City departments to be connected, providing quicker, more efficient services to the public. The information gathered for one department is used when doing business with another department. This connectivity makes it easier for the public and staff to complete transactions in an accurate, timely manner.

In 2000, the City took another leap by introducing e-government functionality to its citizens and other customers with eConnect. The Internet solution provides access to specific government services and information, 24 hours a day, 7 days a week via the City's Web site at www.kirklandpermits.net.



Powerful Solution Streamlines and Automates License and Development

"In our area I think that our customers have pretty high expectations that they should be able to use the Internet for a great deal of things — regardless of whether its business or government," explains Carlson.

"The department uses a batch process to streamline license renewals which saves significant staff time."

Expanding on efficiency, Kirkland continued introducing e-government services, expanding their on-line services to allow users to search for a permit, business license, parcel or address and ultimately link to the King County map server to view parcels of land geographically.

Kirkland originally purchased the solution to manage its various licenses and permits. Since then, the Advantage product has enabled the City to successfully track data and the activities related to it. The improved information management is coupled with the accessibility provided by eConnect, giving Kirkland what it envisioned, "...a cost effective way to provide easier, more open access of our records to our customers and citizens," says Carlson.

THE BOTTOM LINE

The city of Kirkland has not only responded to the demands of e-government, but they have been a large part of introducing it in the region. By first standardizing and centralizing information, and then launching municipal services on-line, they are providing citizens what they want—more convenient, efficient service from government. Kirkland's use of innovative e-government technology provides a true enterprise solution that allows the City to effectively manage internal and external expansion.

Kirkland is continually looking to expand and evolve their e-government services, the most recent endeavor includes working closely with surrounding communities to build and expand a regional Web portal site.



ABOUT ACCELA

Accela is a leading developer of software and Internet applications for state and local government. With Accela, jurisdictions of all sizes will reduce workload, increase efficiency and automate processes while providing citizens and businesses with more convenient access to government services.

Accela, Inc.
4160 Dublin Blvd.
Suite 128
Dublin, CA 94568

www.accela.com

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CityView

CityView® by Municipal Software

Contact: Sean Higgins
shiggins@municipalsoftware.com
1-800-665-5647 x-245

Municipal Software's CityView product offers both an out-of-the-box solution and an Application Builder product that allows a user agency to develop its own custom solution.

The CityView software suite is comprised of three components:

- CityView PreBuilts – described below
- CityView Application Builder – described below
- CityView Services – install and support

CityView prebuilts



Includes:

- Property Information
- Permits & Inspections
- Planning
- Code Enforcement
- Licensing
- Cashiering

PreBuilts are out-of-the-box solutions that give agencies forms, reports and automation components needed to automate business processes. PreBuilts are based on the best practices of various jurisdictions and do not require software development resources.

CityView application builder



CityView Application Builder is a toolkit that gives agencies the ability to develop their own applications and/or change CityView PreBuilts as needed.

CityView Public Portal Module – CityView offers a module that allows the general public to view customized summarizations of an agency's permitting software data. The Public Portal component enables citizens to self-serve online by scheduling inspections, complete permit applications, and view property information.

The following matrix identifies Municipal Software’s ability to meet the seven identified critical needs for an enterprise permitting software application. An additional functionality table, detailing user needs, is provided at the end of this chapter.

 CityView “THE SEVEN CRITICAL NEEDS” Analysis		
1	MUST be web-based	 (MS Smart Client)
2	MUST offer solutions across the enterprise	 (Asset Management can be developed using Application Builder)
3	MUST include an integrated wireless product	
4	MUST be stored in standard non-propriety database ; recommended solution is Microsoft SQL Server	
5	MUST incorporate the City’s existing data	 Incorporated Accela data many times
6	MUST facilitate the integration with other enterprise systems	 Non real-time batch transfer
7	MUST have robust GIS integration (prefer bi-directional, view and create GIS data)	



The following is an order of magnitude pricing table. The pricing should be utilized as a guideline but is not an official quote from the software company.

CityView *Municipal Software CityView® Estimated Pricing **

“LOWER” END SCENARIO: (PreBuilts ONLY for 15 Concurrent Licenses)	
6 PreBuilts (includes each PreBuilt described above)	
15 Concurrent Licenses	
**NO Application Builder or Application Builder Training	
1 CityView Web Services extension (for IVR)	
7 GIS extensions (1/2 Concurrent Licenses total)	
Standard Implementation and Training	
Remote Use through Smart Client running Windows CE	
Integration (batch) with Finance’s Bi-Tech system	
Data Conversion estimate (from ‘PERMITS’ Plus)	
Total	\$ 270,000
ADD: Annual Maintenance	\$ 20,000
ADD: Annual Public Portal Fee	\$ 4,500
ADD: 3 rd Party IVR Provider (Taylor Works)	~ \$ 50,000
“HIGHER” END SCENARIO: (PreBuilts + App Builder for 30 Concurrent Licenses)	
6 PreBuilts (includes each PreBuilt described above)	
30 Concurrent Licenses	
**2 Concurrent Application Builder Licenses + Application Builder Training	
1 CityView Web Services extension (for IVR)	
15 GIS extensions (1/2 Concurrent Licenses total)	
Remote Use through Smart Client running Windows CE	
Gap Analysis and Functional Specifications for Customization	
On-Site, Go-Live Facilitation	
Integration (batch) with Finance’s Bi-Tech system	
Data Conversion estimate (from ‘PERMITS’ Plus)	
Total	\$ 400,000
ADD: Annual Maintenance	\$ 37,000
ADD: Annual Public Portal Fee	\$ 4,500
ADD: 3 rd Party IVR Provider (Taylor Works)	~ \$ 50,000
NOTES:	
* Quote ESTIMATE from email submitted to GTG by Municipal Software	

The following case studies detail successes experienced with CityView software:



CASE STUDY:

Huntington Beach, CA

The City of Huntington Beach set out to eliminate paper-based processes and purchase an enterprise software solution that would work seamlessly with IVR (Interactive Voice Recognition) systems. IVR is an automated telephone-based system that allows anyone to call in from any telephone and follow menu selections in order to accomplish a task like scheduling a building permit inspection for example.

The city selected CityView for its capability, flexibility and value. According to Beverly Braden, Principal Administration Analyst, “the customized design meant that CityView could be whatever we wanted it to be. Our new system did not have to be driven by an ‘off-the-shelf’ shell system.” Braden says that “we were also impressed with how easily forms and reports can be created ‘on-the-fly’ in CityView.”

It was these features and the fact that CityView could be used with Huntington Beach’s IVR system that made CityView the right software for the city. Now, data contained in Huntington Beach’s CityView system can be accessed and modified by their IVR system as required. So when a citizen dials in and selects option 1, for example, in order to pay a building permit invoice, the data is accessed and updated accordingly.

Huntington Beach has quickly realized the benefits of CityView. According to Braden, CityView and the city’s new IVR system will handle 70,000 calls per year, “The major benefit has been the elimination of staff time on the telephone, which allows staff members to spend time with customers at the counter.” Now callers follow essentially the same business process that is used by front counter personnel, thereby eliminating time-consuming data entry tasks for the city’s staff.

Village of Glenview, IL

The Village of Glenview chose CityView to replace an old legacy system that forced inspectors to complete five-part carbon forms out in the field and then return to the office to enter the same data again into a computer. Now, thanks to CityView, pen tablet computers and portable printers, inspectors can do most of their ‘paperwork’ from their vehicles, saving driving time to and from the office and eliminating duplication of data entry.

After using the paper-based system for almost 15 years, the Village of Glenview knew it had outgrown it. The village wanted better reporting capabilities and software that would support a Geographical Information System (GIS). They found what they were looking for in CityView, including: the ability to integrate easily with other applications, especially financial and GIS,

- ease of use,
- the ability to customize without vendor involvement,
- the necessary functionality to improve efficiency, and
- the ability to automate all inspections from building to engineering, health to code enforcement.

Today, each inspector’s pen tablet contains a replica of the village’s main permit database. In the morning, when the field inspectors pick up their pen tablets and set out on their rounds, every tablet contains a copy of the database with the exact same information. During the day the inspectors make changes to the database on their individual pen tablets out in the field and then at the end of the day they return to the office and re-synchronize their database with the central database.

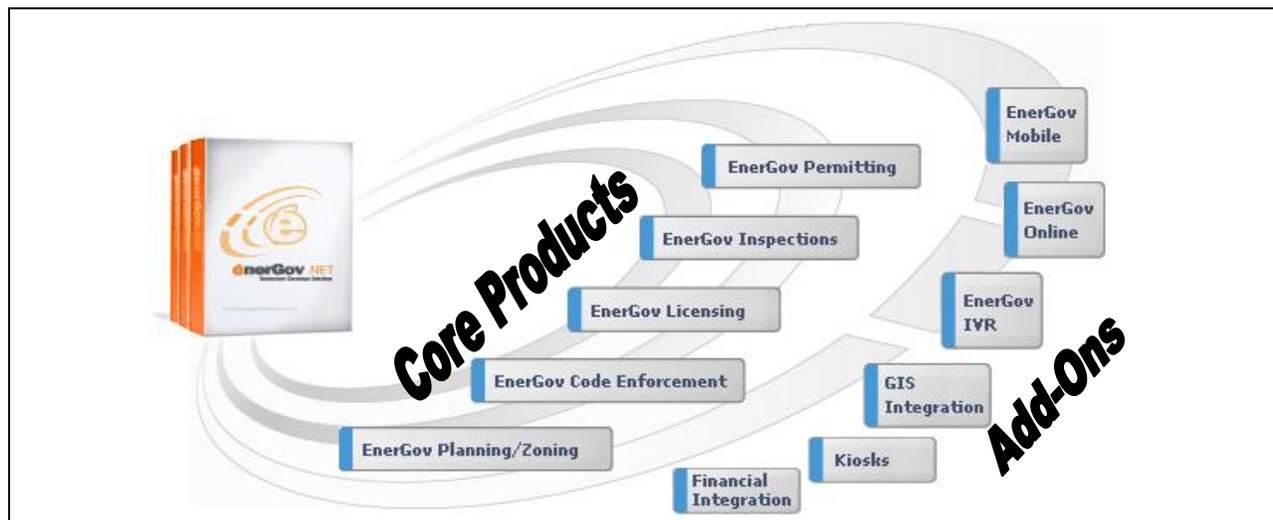
CityView allows the Village of Glenview to run more efficiently. Since installing it they have been able to eliminate more than 25 different permit and inspection forms and use one form for almost everything.



EnerGov .NET[®] by EnerGov Solutions

Contact: Chuck Newberry, CPA
cnewberry@energov.com
(888) 355-1093 ext. 731

EnerGov .NET, from enerGov Solutions, is touted as an enterprise land management solution designed specifically for community development operations. The product is comprised of its “core products” as follows: EnerGov Permitting, EnerGov Inspections, EnerGov Licensing, EnerGov Code Enforcement, and EnerGov Planning/Zoning. “Add-Ons” include: EnerGov Mobile, EnerGov Online, EnerGov IVR, GIS, Kiosks, and Financial Integration



EnerGov .NET Product Suite

The “Core Products” offer functionality as follows:

- **EnerGov Permitting (Permit Manager)** - Developed in Microsoft .NET, EnerGov's Permit Manager allows staff to input data, verify activities, check permit status, and obtain parcel information. Permit process automation includes; application check-in, planning reviews, fee calculations and collections, inspections, sign-offs, task lists, and more. System wizards guide users through various procedures.
- **EnerGov Inspections** - centers around an agency's inspection business workflows.
- **EnerGov Licensing (License Manager)** - allows organizations to manage business licenses, liquor licenses, trade licenses, temporary licenses, marriage licenses, animal licenses and any other licenses as needed.
- **EnerGov Code Enforcement** - tracks all the necessary information required to manage code enforcement issues. The software manages activities, fees, violations, violators, inspections, letters, compliance deadlines, and resolutions. Users can view compliance deadline reports, citation issuance reports, as well as payment reports.
- **EnerGov Planning/Zoning** - tracks all aspects of the application process. Reviews, discussions, check off criteria can be tracked and stored as permanent records. The

planning module also integrates seamlessly with EnerGov .NET Permitting and Inspections modules. The Planning Module tracks application workflows and departmental reviews. Steps of the review process can be assigned to individuals as well as departments. Deadlines for each step of a case can be defined and tracked. Cases can be linked to parcels and interfaced with GIS as part of the product.

Additional functions include:

- **Laptop Field Units and Wireless Field Units (e.g. PDA, Mobile Phones) -** EnerGov offers their MobileGov product that provides a real-time field solution. Sign-offs, inspection details and other data can be made available to users via web and IVR (Telephony Automation). Cancellations, reschedules and reassignments are also updated on daily schedules while inspectors are in the field. MobileGov field solutions are compatible with handheld/mobile devices, laptops, and tablet PCs running on the Windows XP/Windows Mobile operating systems.
- **IVR (Telephony Automation) -** EnerGov IVR (interactive voice response) is an automated telephony based system that provides a community with 24-hour access to permitting and inspection services.
- **Citizen Access Web Portals -** EnerGov Citizen Access is a web portal that provides a community with access to Permitting, Inspection, Code Enforcement and other community development services.

GIS Integration and Associated Vehicle Route Planning - EnerGov .NET built-in GIS allows all land management related cases (permits, plans, code cases etc.) linked to parcels to be interfaced with a jurisdiction's GIS data.

- **Financial Integration -** EnerGov .NET offers the ability to integrate and communicate with an agency's existing financial software package. EnerGov staff would have to review the structure of the data to develop a plan and costs for this integration.

The following matrix identifies EnerGov Solutions' ability to meet the seven identified critical needs for an enterprise permitting software application. An additional functionality table, detailing user needs, is provided at the end of this chapter.

 EnerGov .NET "THE SEVEN CRITICAL NEEDS" Analysis		
1	MUST be web-based	
2	MUST offer solutions across the enterprise	 Missing Asset Management
3	MUST include an integrated wireless product	 MobileGov

 EnerGov .NET "THE SEVEN CRITICAL NEEDS" Analysis		
4	MUST be stored in standard non-propriety database ; recommended solution is Microsoft SQL Server	
5	MUST incorporate the City's existing data	 Experienced with Accela Data Conversion
6	MUST facilitate the integration with other enterprise systems	
7	MUST have robust GIS integration (prefer bi-directional, view and create GIS data)	 View & Create GIS data

The following is an order of magnitude pricing table. The pricing should be utilized as a guideline but is not an official quote from the software company.

 EnerGov .NET [®] Estimated Pricing *	
ENTERPRISE "CITIZEN ACCESS": (15 Concurrent Licenses)	
Land Management Suite (includes each core product)	
	Total \$ 89,600
ADD: Annual Maintenance (\$ 3,798/Qtr)	\$ 15,192
ADD: GIS integration (\$ 1,999/ea x 7 units)	\$ 13,993
ADD: GIS integration Annual Maintenance (\$ 99/Unit/Qtr)	\$ 2,772
ADD: MobileGov (20 laptops @ \$2,399/ea)	\$ 47,980
ADD: MobileGov 1 st Year Maintenance/Support (\$259/Unit/Qtr)	\$ 20,720
ADD: 2 Specialists On-Site for Training (\$ 1,299/day x 30 days)	\$ 38,970
GRAND TOTAL	\$ 229,227 †
ENTERPRISE "CITIZEN ACCESS": (30 Concurrent Licenses)	
Land Management Suite (includes each core product)	
	Total \$ 148,450
ADD: Annual Maintenance (\$ 5,641/Qtr)	\$ 22,560
ADD: GIS integration (\$ 1,999/ea x 15 units)	\$ 29,985
ADD: GIS integration Annual Maintenance (\$ 99/Unit/Qtr)	\$ 5,940
ADD: MobileGov (20 laptops @ \$2,399/ea)	\$ 47,980
ADD: MobileGov 1 st Year Maintenance/Support (\$129/Unit/Qtr)	\$ 20,720
ADD: 2 Specialists On-Site for Training (\$ 1,299/day x 30 days)	\$ 38,970
GRAND TOTAL †	\$ 314,605 †
NOTES:	
* Quote built from EnerGov price sheet, which is available from the company	
† Grand Totals DO NOT INCLUDE:	
<ul style="list-style-type: none"> • Setup & Implementation Services must be a custom quote from EnerGov. The typical range for this service is anywhere from \$ 30,000 to \$ 50,000+ for a community the size of West Sacramento. • Data conversion of City's 'PERMITS' Plus data must be a custom quote based on 	

complexity of importation, taking into account: amount of programming required, volume of data, type of data imported, time span of importation, and legacy format provided



Plus Series by SunGard Pentamation®

Contact: Jay Reed
reedjay@pentamation.com
1-866-905-8989 x-5335

eCommunityPLUS is a windows-based public services and community development information management system for municipalities, counties, and authorities that are looking for:

- Windows-based technology
- An easy-to-use design and Windows interface
- Leverage of a single, community-wide database
- Web-access to view and manage information
- Intelligent workflow procedures
- Integration with other popular desktop applications
- Internet services for their constituency
- Ease of implementation and deployment

eCommunityPLUS includes the following core products:

- **Utility Management** - utility customer information, billing and collection system. Utility departments can manage day-to-day processes and field activities. Customers can access their account information or make payments over the Internet through eGovernment Services (detailed below).
- **Community Development** – allows staff to manage development planning, license contractors, issue permits, process inspections and enforce jurisdictional codes. Additionally, the software tracks all community development activities and information, including any multi-media items such as construction plans, photographs or correspondence. In addition, the web-based eGovernment Services (detailed below) allows agencies to provide web services to contractors, business owners and residents to view account information, review plans, schedule inspections, and make payments.
- **Licensing** - provides a licensing system to efficiently issue or renew all types of community licenses.
- **Miscellaneous Billing** - provides local governments with billing and receivables features for miscellaneous services, false alarms, or special property assessments.
- **Work Orders** – tracks request for service including repairs or renovations to vehicles, facilities, and technology.
- **Service Requests** - this Constituent Relationship Management (CRM) system enhances community relations by providing all departments with a single, consistent

method to efficiently record, route, track and respond to any request for service or complaint from their community.

- **Parks and Recreation** - this system provides an organization with a way to track, schedule and enroll participants in recreational activities. Agencies can generate schedules for these activities and check that all applicants enrolling meet any requirements they set. Additional features provide local governments with the ability to assign staff, facilities and inventory.
- **eGovernment Services** - provides contractors, business owners and citizens with re-government services over the Internet.
- **Integrated Reporting** - provides staff with multiple query and reporting options to generate a full range of simple to complex reports and quickly distribute them to people inside or outside the organization.

The following matrix identifies Pentamation's ability to meet the seven identified critical needs for an enterprise permitting software application. An additional functionality table, detailing user needs, is provided at the end of this chapter.

SUNGARD PENTAMATION		eCommunityPLUS "THE SEVEN CRITICAL NEEDS" Analysis
1	MUST be web-based	 Only certain modules are Web based
2	MUST offer solutions across the enterprise	 Missing Asset Management
3	MUST include an integrated wireless product	 Can sync with Permitting Data using PDAs only
4	MUST be stored in standard non-propriety database ; recommended solution is Microsoft SQL Server	
5	MUST incorporate the City's existing data	 Requires specialist on-site
6	MUST facilitate the integration with other enterprise systems	
7	MUST have robust GIS integration (prefer bi-directional, view and create GIS data)	 Not ESRI compliant and requires specialist on-site



Pentamation® eCommunityPLUS Estimated Pricing

NOTES:

SunGard Pentamation did not respond to repeated requests for pricing.

The following case study highlights eFinancePLUS+ software:



CASE STUDY:

eFinancePLUS+ generates a faster flow of information so the county can be more responsive to its constituency and vendors. Processing requisitions, for example, runs more quickly now in every county department. The county formerly used time consuming paper requisition forms. An employee initiated a requisition then would send it on to her manager, who would then forward it to someone trained to use the old system. "It took about two days before a req would be posted and if someone was absent or the paper took a while to flow through the system, it could take longer," said Hauptert, "Now it's online. It happens in seconds." Because more people on the Peoria County staff are completing tasks without relying on system technicians, employees have become more productive. "We were able to achieve significant efficiencies with eFinancePLUS+," said Hauptert. "If you free up time on one area, you can do a better job somewhere else."

"Insanely popular" among employees

Employees can also use the system to access their personal financial information online, which has helped improve job satisfaction. The Employee Access Center in eFinancePLUS+ is, according to Hauptert, "insanely popular with our folks." Employees can look up their benefit information, review their payment history and update their own personal profiles. "They no longer have to call payroll when they have a question about a check or even a deduction that was made, say, back in January," said Hauptert. In addition, the system offers employees information beyond what's printed on their pay stubs. For example, not only can they find their own insurance and FICA deductions, they can easily see the amount paid by the county, as well. When the employees become more aware of how much the county contributes to their quality of life, they can be more content with their workplace.

The SunGard Pentamation system also contains a module that allows members of the public to apply for county jobs online. "As soon as someone applies for a job, the information flows through the system," said Hauptert. With no need to retype resume information, jobs can be filled more quickly and the chance for errors is reduced.

Smoother payroll processing

Because eFinancePLUS+ runs more reliably than the county's former system, it has helped lower the stress level for some Peoria County staff members, especially those responsible for processing the paychecks. Payroll Manager Angie Kramer has noticed a distinct change in working conditions since the SunGard Pentamation system has been installed. "Before, we were in panic mode every month with a last-minute rush to meet the payroll deadline," said Hauptert. Instead of a small handful of trained payroll technicians hurrying to input and process data all at once, the system is now accessible to anyone with authorization. A larger team of employees can input data and make changes over the entire month. "The payroll process is much more effective now. It's more automatic, with wizards that guide you through the system," said Hauptert.

As the IT Director, Hauptert himself had to be on call the night before paychecks were issued. "I used to worry, am I gonna' be here till 2:00 AM trying to figure out what's wrong with the payroll?" The SunGard Pentamation system makes preparation for payday smoother, less hurried and completely predictable.

"More than we expected"

The initial transition to eFinancePLUS+ was also a stress-free experience for Hauptert and his team. Any large system implementation requires a certain amount of work, and although they had an aggressive schedule, the Peoria County IT team never felt worried or anxious.

Hauptert set an ambitious 90-day transition schedule and met all the deadlines. Questions were quickly answered by helpful SunGard Pentamation specialists. "We got more than we expected from SunGard Pentamation. Every milestone was either on time or ahead of schedule," said Hauptert, "And that was a departure from what I usually see when integrating a new IT system." Peoria County also found value in the suggestions offered by the SunGard Pentamation team during the system setup. "The quality of the people from SunGard Pentamation who came out to help us set up was phenomenal," said Hauptert, "Their advice was like free business process re-engineering." For example, after becoming familiar with Peoria County's old processes, the SunGard Pentamation team frequently offered ideas on other, more efficient ways for organizations like Peoria County to set up their systems.



iCity software by Star Municipal Technologies

Contact: 6107 SW Murray Blvd., #173
Beaverton, OR 97008-4467
1.866.763.7654 (ph)

Vadim Software develops financial, municipal, asset management and utility management software for municipalities, local governments, and utility companies. iCity primary software focus was originally focused on financials. Other modules have been created to meet other municipal needs. The following are the modules available for iCity:

- **Property Taxation** - property taxation billing, reports and account control.
- **Utility Billing** - billing for water, sewer, garbage, electricity and natural gas.
- **Business Licenses** - issue, report and track businesses operating within the municipality, including non-resident businesses.
- **Municipal Tickets** - controls the issuance of parking tickets, collections, reminders, summons and warrants while retaining previous violation history.
- **Building Permits** - issue, report, inspect and maintain an issued permit database for properties within a municipality.
- **iCitizen** - provides citizens to book services, view their account information and update data and make payments.
- **Document Imaging and Workflow** - images can be attached to a record. In addition to images, this application integrates any PC compatible file such as; word processing, spreadsheets, GIS, and audio.
- **GIS Viewer** – GIS data integration module

The following matrix identifies Vadim’s ability to meet the seven identified critical needs for an enterprise permitting software application. An additional functionality table, detailing user needs, is provided at the end of this chapter.

 iCity Software Suite “THE SEVEN CRITICAL NEEDS” Analysis		
1	MUST be web-based	 Not Robust
2	MUST offer solutions across the enterprise	 Missing Components
3	MUST include an integrated wireless product	
4	MUST be stored in standard non-propriety database ; recommended solution is Microsoft SQL Server	
5	MUST incorporate the City’s existing data	

  iCity Software Suite "THE SEVEN CRITICAL NEEDS" Analysis		
6	MUST facilitate the integration with other enterprise systems	
7	MUST have robust GIS integration (prefer bi-directional, view and create GIS data)	 Data viewer only

Vadim delivers pricing estimates only in response to RFPs. Pricing would not be provided by Vadim for this study.

  <i>iCity software Pricing</i>	
NOTES:	
Vadim delivers pricing estimates only in response to RFPs. Pricing would not be provided by Vadim for this study.	



PTWin32v2 by Black Bear Systems

Contact: Serenity Lumbard
info@blackbearsystems.com
 (360) 379-9750

PTWin32v2 primary stated purpose is to track and report a variety of planning, building, zoning, licensing, and code enforcement records kept by local governments.

PTWin32v2 is comprised of three major modules and various sub-modules:

1. Permits
2. Licenses
3. Code Enforcement

The following are the pertinent modules available for PTWin:

- **Permits** - over 20 predefined permit types for agencies to use, or tailor to their needs.
- **Plan Review** - manages the plan review process keeps everyone. Agencies can track multiple departments and multiple reviewers within those departments.
- **Code Enforcement** - citations and notification information, including parties involved, the location, fees or fines charged, inspections, conditions, and appeal data.
- **Inspections** - PTWin32v2 provides a dozen predefined inspection types with checklists for agencies to use or modify. PTWin32v2 comes with an integrated Inspection Scheduler that can manage multiple inspectors. Agencies can block out specific times and dates, as well as print schedules for one or all inspectors.

- **Parcels** (PCM) - Users can track all permits, conditions, violations, or code enforcement actions related to a parcel as well as complete legal description and historic ownership information.
- **Licenses** - tracks license and fee information at state and local levels
- **Graphics** – allows for the attachment of photos, scanned drawing, maps, etc.

The following matrix identifies Black Bear’s ability to meet the seven identified critical needs for an enterprise permitting software application. An additional functionality table, detailing user needs, is provided at the end of this chapter.

 iCity Software Suite “THE SEVEN CRITICAL NEEDS” Analysis		
1	MUST be web-based	
2	MUST offer solutions across the enterprise	
3	MUST include an integrated wireless product	 Interface with a 3 rd party vendor (Penn Systems)
4	MUST be stored in standard non-propriety database ; recommended solution is Microsoft SQL Server	
5	MUST incorporate the City’s existing data	 State ability to integrate existing data
6	MUST facilitate the integration with other enterprise systems	 Extra programming and cost
7	MUST have robust GIS integration (prefer bi-directional, view and create GIS data)	 Would have to be customized

The following is an order of magnitude pricing table. The pricing should be utilized as a guideline but is not an official quote from the software company.

		<i>PTWin32v2® Estimated Pricing *</i>	
http://www.blackbearsystems.com/po.htm			
MAX SQL Server Version: (30 Site Licenses)			
MAX Suite (includes each module detailed above)			
		Total	\$ 6,995
ADD: 3 Year's Annual Maintenance		FREE	FREE
ADD: Following 3 rd Year Annual Maintenance		\$ 2,500/year	
NOTES:			
* Does NOT INCLUDE the following:			
<ul style="list-style-type: none"> • Cost of SQL Server license(s) • Data conversion – custom quote based on complexity of importation, taking into account: <ul style="list-style-type: none"> ○ Amount of Programming required ○ Volume of Data ○ Type of Data Imported ○ Time Span of Importation ○ Legacy Format Provided 			



PG Govern Software Suite by PG Govern

Contact: Richard Beaini
rbeaini@pggovern.com
 1-866-617-4468

PG Govern has a variety of modules and functions for enterprise permitting and related tasks as follows:

- **Permit Tracking and Inspection Scheduling** – allows an organization to register, consolidate and track information related to a parcel of land or property records. The core of the module is a centralized data repository that stores and automates the flow of information between divisions like Building, Planning and Engineering as well as the issuance of licenses. The software allows for the recording and retrieval of various land-related data that can be different for each type of permit, license, approval or decision.
- **Inspections (Desktop and Mobile)** - PG Govern’s mobile inspection and desk-top inspection components provide a web-based version of the inspections function and search screens in PG Govern Software. PG Govern’s wireless field device enables inspectors to extend processing capabilities to the field. With an Internet connection on a wireless-enabled hand-held PDA unit or notebook, inspectors can run queries and update the PG Govern database while on-site.

- GIS Integration** - PG Govern software integrates with existing Geographic Information Systems (GIS). Information such as selected parcels, owner information, inspections, permits, complaints and other related data can be pulled into a GIS application from PG Govern's database. Selected properties can be passed from GIS into PG Govern's software to derive a record set of parcels in which an action is to be taken.

PG Govern has a host of other modules related to taxation and financials that are not applicable to this study.

The following matrix identifies PG Govern's ability to meet the seven identified critical needs for an enterprise permitting software application. An additional functionality table, detailing user needs, is provided at the end of this chapter.

 PG Govern Software Suite "THE SEVEN CRITICAL NEEDS" Analysis		
1	MUST be web-based	 In development
2	MUST offer solutions across the enterprise	 Offers some pertinent modules but has a strong financials focus.
3	MUST include an integrated wireless product	 Wireless and Sync capable
4	MUST be stored in standard non-propriety database ; recommended solution is Microsoft SQL Server	 Only in Oracle
5	MUST incorporate the City's existing data	
6	MUST facilitate the integration with other enterprise systems	
7	MUST have robust GIS integration (prefer bi-directional, view and create GIS data)	 Some bi-directional functions.



The following is an order of magnitude pricing table. The pricing should be utilized as a guideline but is not an official quote from the software company.

 <i>PG Govern Estimated Pricing *</i>	
SOFTWARE:	
Base Module Program Licensing (Permits, Insp., & Licensing)	\$ 12,000
Base Module Full Access Concurrent Licenses (50)	\$ 85,000
Base Module Inquiry Only Concurrent Licenses (10)	\$ 5,000
Web Modules (eProfile, ePayments, ePermits, eLicenses & eComplaints)	\$ 28,500
Mobile Field eInspections Licensing (Wireless – Server & Clients)	\$ 27,000
Bi-Tech Interface	\$ 7,500
Custom Reports (Building & Insp., Planning & Zoning, Code Enforcement, & Occupational Licenses)	\$ 30,000
Total	\$ 200,500
PROFESSIONAL SERVICES:	
Data Conversion Services (Building & Insp., Planning & Zoning, Code Enforcement, Engineering, Data Conversion Analysis, and Data Conversion Mapping & Review)	\$ 42,400
Implementation Services (146 total days)	\$ 164,400
Training Services (22 total days)	\$ 26,400
Total	\$ 233,200
PRICE PROPOSAL SUMMARY	
	460,700
PER DIEM EXPENSES:	
Area 3 (Transportation, Hotels, & Meals)	\$ 56,000
Total	\$ 56,000
MAINTENANCE & SUPPORT:	
12 Months Warranty from Installation Date	\$ 0
Year 1 – Support & Maintenance (starts after warranty or Go-Live, whichever is first)	\$ 37,980
Year 2 – Support & Maintenance	\$ 39,879
Year 3 – Support & Maintenance	\$ 41,872.95
Year 4 – Support & Maintenance	\$ 43,966.60
Year 5 – Support & Maintenance	\$ 46,164.93
NOTES:	
* Quote built from PG Govern price quote, which is available from the company	



HdL Software Suite by The HdL Companies

Contact: Mike Putnam
mputnam@hdlcompanies.com
 1-888-861-0220 x-338

HdL Software provides full service software solutions for local government. HdL offers a modularized software package that includes licensing, code enforcement, permitting, inspections, and web components.



The image displays seven software modules arranged in two columns. The 'Online Web' module is highlighted with a 'NEW' starburst and a callout bubble that says 'Have Laptop Will Travel!'. Each module includes a list of features and a small representative image.

- Business License**
 - Track underreporting
 - Find hidden businesses
 - Process special taxes and fees & more...
- Animal License**
 - Track current & historical tags
 - Track vaccination dates & types
 - Track breed and color & more...
- Code Enforcement**
 - Track and manage code cases
 - Track inspections, notices, letters
 - Link photos, letters and other docs & more...
- Permit Tracking**
 - Calculate fees and values
 - Schedule and track inspections
 - Manage conditions, approvals and appeals & more...
- Online Web** (module to Business License Software)
 - Accept renewals online via your website
 - Securely process credit card payments
 - Accurate fee/penalty calculations & more...
- Fire Inspection** (module to Business License Software)
 - Track inspections & violations
 - Track fire systems & locations
 - Track underground tanks & more...
- False Alarm**
 - Process Alarm Registrations
 - Track alarm incidents
 - Calculate fees, print invoices and renewals & more...

The HdL Software bundle

Information on pertinent modules is as follows:

Business Licenses - maintains business licenses data. Tracks licenses, owners, emergency information, tax I.D. numbers, and expiration dates.

Code Enforcement - allows users to track code enforcement cases from initial complaint to final abatement. Tracks violations such as building codes, weeds, debris and abandoned vehicles while notifying users of case status at pertinent intervals. The module allows the user to attach photos and other important documents to a violation.

Permits - from application through final inspection.

HdL Map - allows the user to select a map view of parcels by clicking on an HdLMAP icon from within any HdL program. The map view highlights the parcels selected.

The following matrix identifies HdL’s ability to meet the seven identified critical needs for an enterprise permitting software application. An additional functionality table, detailing user needs, is provided at the end of this chapter.

 HdL Software Suite “THE SEVEN CRITICAL NEEDS” Analysis		
1	MUST be web-based	 Business Licenses Only
2	MUST offer solutions across the enterprise	 Missing Various Components
3	MUST include an integrated wireless product	
4	MUST be stored in standard non-propriety database ; recommended solution is Microsoft SQL Server	
5	MUST incorporate the City’s existing data	
6	MUST facilitate the integration with other enterprise systems	
7	MUST have robust GIS integration (prefer bi-directional, view and create GIS data)	 Rudimentary Data Viewing Only

HdL did not respond to repeated queries to obtain pricing information.

 <i>HdL Software Suite Estimated Pricing</i>
NOTES: HdL did not respond to repeated queries to obtain pricing information

Just imagine... **asyst** *asyst*[®] by United Systems Technology

Contact: Patrick McGarrity, Jr.
patrick.mcgarritty@usti.us
800-456-8784 x1402

United Systems Technology's offers a permitting product line named asyst. The asyst product line includes fund accounting, encumbrance accounting, budgeting, accounts payable, purchasing, cash receipts, payroll, utility billing, tax billing, licensing, permitting and municipal court. Pertinent modules are as follows:

Code Enforcement - asyst Code Enforcement provides a centralized database of code enforcement complaints and handles the subsequent assignment of a code enforcement officer to inspect the alleged violation. The asyst Code Enforcement software schedules initial and subsequent inspections by the assigned code enforcement officer. This software application also allows the addition of code violations and requires input after the code enforcement officer has returned from the inspection. If necessary the software handles billing of the owner for corrections made by or on behalf of the city. All parcels are maintained by asyst Land Management and all data, such as violation and correction codes, are user definable. Open and closed violation reports, inspection schedule reports, and owner violation letters.

Building Permits - asyst Building Permits provides a system for issuing and maintaining building permits throughout the construction process. asyst Building Permits allows the City to enter and maintain permit applications for a variety of permit types. The application keeps track of the areas and dollar values involved in the project being permitted. The asyst Building Permit application can assign any number of contractors and contract values to a permit and also recording the inspections required on each permit. The interface allows the user to enter and maintain the permit fees associated with each permit and the dates on which each is paid. The interface allows the user to record the necessary inspections, the schedule dates, any necessary re-inspections and the results of each inspection along with unique inspection notes.

Business Licenses - asyst Business Licenses provides a system for issuing business licenses for any number of different business license types. The application allows for input to enter and maintain license applications for a variety of license types while keeping track of the applicant, the business owner and the physical location of the business. The asyst Business License module tracks the effective date and renewal date for each license and entering and maintaining the license fee factors and the actual fee associated with each license and the dates on which each is paid.

The following matrix identifies asyst's ability to meet the seven identified critical needs for an enterprise permitting software application. An additional functionality table, detailing user needs, is provided at the end of this chapter.

 asyst Software "THE SEVEN CRITICAL NEEDS" Analysis		
1	MUST be web-based	
2	MUST offer solutions across the enterprise	 Includes Asset Management
3	MUST include an integrated wireless product	 In development for Permitting Application
4	MUST be stored in standard non-propriety database ; recommended solution is Microsoft SQL Server	 In development for 2008
5	MUST incorporate the City's existing data	
6	MUST facilitate the integration with other enterprise systems	
7	MUST have robust GIS integration (prefer bi-directional, view and create GIS data)	 View GIS data only

UST would not provide pricing information on the asyst without a formal request from the City.

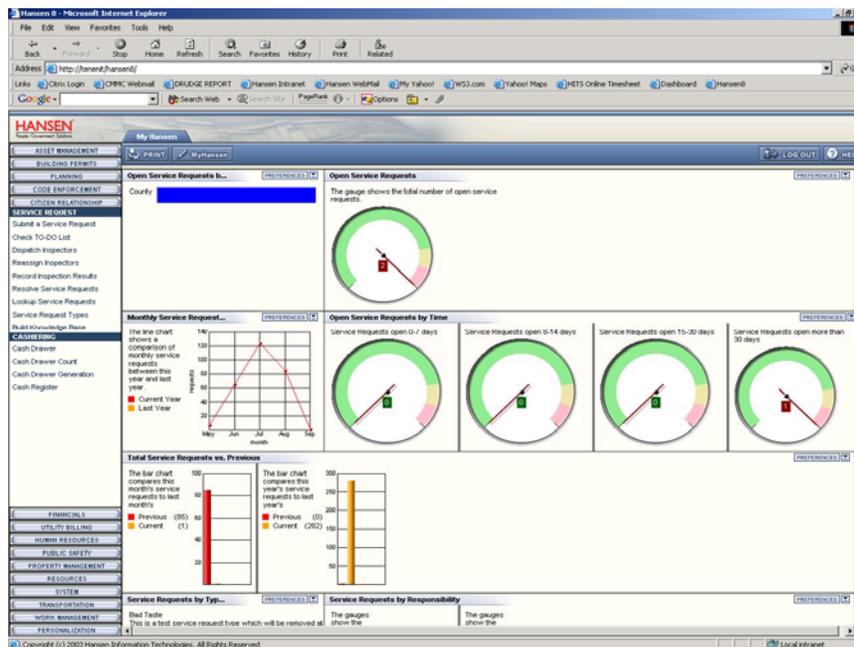
 asyst Software Estimated Pricing
NOTES: UST would not provide pricing information on the asyst without a formal request from the City.



Hansen 8™ by Hansen Technologies/Infor

Contact: Randall Scheideman
Randall.Scheideman@infor.com
 1-800-821-9316 x3519

Hansen Information Technologies is a leading supplier of application software designed to help manage the operations of government. Hansen's products aggregate citizen and business requests for services and business transactions, across the enterprise, offering multiple channels (i.e. web portal, kiosk, front counter, telephone, and email) of secured access to back-office functions.



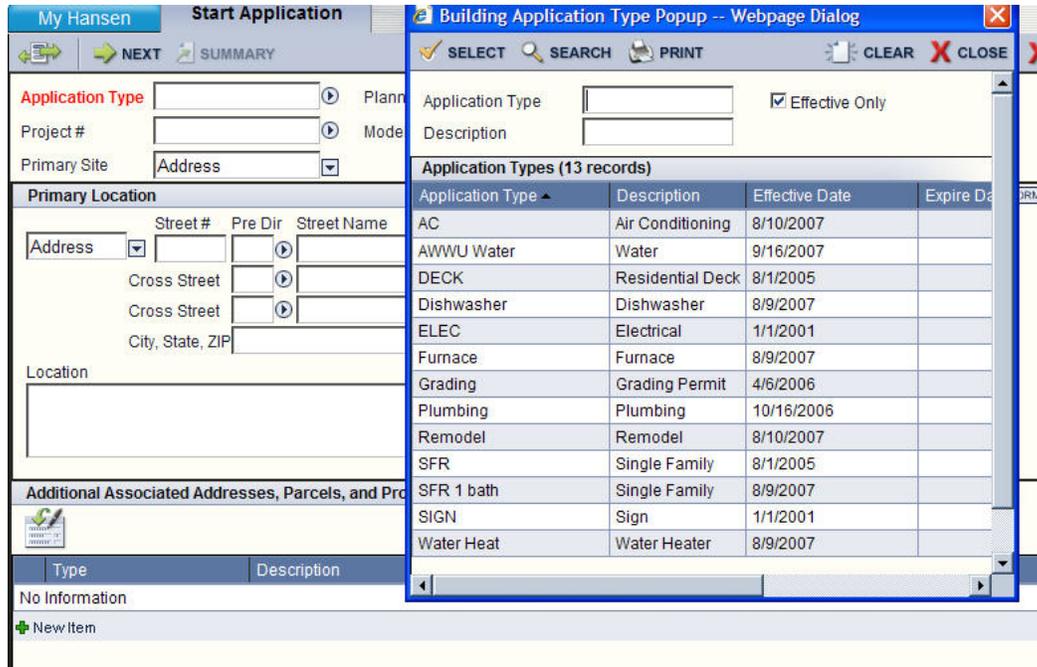
Hansen 8's web-based portal

Hansen customers include over 450 governments, including state, city, county, and special districts. The company is a privately-held corporation that employs 250 employees. Headquartered in Sacramento, California, the company has offices in Auckland, London, Perth, Melbourne, Mississauga (Toronto) and Sydney, Australia. Hansen publicly announced that the company was acquired by Infor on June 1st, 2007.

Hansen's enterprise product suite includes the following integrated solutions that fit the City of West Sacramento's enterprise database needs:

Core Products

- **Building Permit Solutions including:**
 - Streamlined Application Processing
 - Building Application Template
 - Use Template
 - Project/Planning Template



Starting a Building Permit application in Hansen 8

- Code Enforcement Solutions
- Online Licensing
- Public Works Solutions
 - Meter Management/Reading
 - Parks Mangement
 - Plant & Fleet Management
 - Property Management
 - Stormwater Management
 - Street Management
 - Wastewater Management
 - Water Management
 - Work Management

Add-Ons

- Hansen GIS Solutions

Hansen has several options for adding spatial decision support tools to give agencies the most comprehensive GIS solution, from integrated mapping to interfaces that create, link and synchronize Hansen data with leading GIS applications.

- Integrated Map Viewer™ (IMV) – for general users:



Query, view, and interact with an agency's assets and parcels on a map from within Hansen Series software using Hansen's Integrated Map Viewer™ (IMV).

- o *GeoAssistant – for desktop GIS users:*



Query the Hansen database from the GIS user interface. Display assets, parcels, work orders, service requests and more on the map and view the attribute data pulled from Hansen. Link assets and parcels on the map to Hansen inventory records quickly and easily.

Hansen's GeoAssistant™ lets users interact with their Hansen data in ArcGIS.

- **Hansen Mobile Solutions**

Hansen Mobile Solutions (HMS) provides a fully functional, field automation solution.
HMS Advantages:

- Field crews and inspectors can receive daily assignments without visiting the office.
- Field crews can directly access supporting information from their Hansen Version 7.x database.
- Completed activities can be transmitted directly back to the Version 7.x database.
- New assignments can be immediately dispatched to the field for completion.
- Supervisors can adjust schedules immediately if problems arise.

- o *Connectivity Options*

CDPD (Cellular Digital Packet Data) communication is ideal for field automation applications where employees operate in large, undefined geographic areas. Other options include wired-local area networks such as Ethernet or short distance wireless LANs. When wireless capabilities are not available, dial-up connectivity can round out an information enterprise in most locations. With satellite phone services, connectivity with Hansen Mobile Solutions can be established for even the most remote users.

- **Hansen's Executive Dashboard**

- o Hansen's Executive Dashboard highlights key performance indicators (KPIs) so agencies know exactly how they are doing at any time. Users can also detect any problems at a glance, from anywhere, through a Web browser.

- **Hansen's DynamicPORTAL™**

This add-on product provides several intention-specific service portals for its customers. These portals allow state and local governments to provide automated services from their Web sites as a service to their citizens/customers.

CASE STUDY: Future Looks Bright with Advanced Infrastructure and Resource Management

Hansen Case Study

HANSEN'S FEDERAL SOLUTION

Monterey and Presidio of Monterey, California

From its dramatic coastline to its fertile farmland, Monterey, California has been attracting visitors since the 1880s. Located between Los Angeles and San Francisco, Monterey has dramatic ocean scenery, pristine pine forests, and historic communities and buildings. Artists and writers have painted, photographed and written about its breathtaking cliffs and agriculturally rich valleys. Monterey has a population of 33,350 residents and an annual tourist population of approximately five million people.

CASE SUMMARY

The City of Monterey's Public Works Department turned to Hansen's integrated software solution for infrastructure and resource management. The Hansen solution is helping the City gain nationwide attention and an even stronger city image.

"The Hansen system has provided the City with reliable cost data and is helping us keep up with the dynamics of the environment. As a public works organization, it makes us stronger and we are able to spend the tax payers' money more wisely."

*- Hans Uslar
Public Works
Administrative Services
Manager, City of
Monterey*

HANSEN[®]
People. Government. Solutions.

Over the years, the City of Monterey's Public Works Department has provided and maintained public services and facilities that contribute to the health, safety and well-being of the community. They have strived to do so without detriment to the City's unique environment. In 1996, the Department decided to manage their infrastructure and resources with an integrated software solution. Today, that system is helping the City gain nationwide attention and an even stronger city image.

When Hans Uslar, Public Works Administrative Services Manager, first started working for Monterey, the City was using a legacy system that was supporting different entities. The system was supporting the fleet, parks, engineering, building maintenance and forestry departments. Uslar



said the system was outdated, lacked basic features and produced redundant data. "We constantly had apples and oranges," he said. "We were not able to compare prices, productivity rates or benchmarks, and data management was left to the office staff."

These inefficiencies made it difficult for Public Works to prove they were maintaining infrastructure properly. "We couldn't log reports to show that we were doing a good job," Uslar said.

In 1996, the Public Works Department decided it was time to switch from their legacy system to an integrated system. The City selected its new system from Hansen Information Technologies. "The system has provided the City with reliable cost data and is helping us keep up with the dynamics of the environment. As a public works organization, it makes us stronger and we are able to spend the tax payers' money more wisely," said Uslar. The system is being used for the City's street, storm, sewer, fleet maintenance, parks, building maintenance and forestry operations.

Uslar boasts that the system has more advantages than challenges. In addition, the system helps better address citizens' needs by helping Public Works explain certain financial constraints and requirements to residents. For example, "our aging sewer system requires some intense capital improvements over the next years. The Hansen system will enable us to tell the public how much money we have to invest into a capital improvement program over the next five years," Uslar said.

The following matrix identifies Hansen’s ability to meet the seven identified critical needs for an enterprise permitting software application. An additional functionality table, detailing user needs, is provided at the end of this chapter.

 Hansen 8 "THE SEVEN CRITICAL NEEDS" Analysis		
1	MUST be web-based	 Only in Version 8
2	MUST offer solutions across the enterprise	 Includes Asset Management
3	MUST include an integrated mobile product	 Hansen Mobile Solutions (HMS) add-on
4	MUST be stored in standard non-propriety database ; recommended solution is Microsoft SQL Server	
5	MUST incorporate the City’s existing data	 Experienced with Accele Data Conversion
6	MUST facilitate the integration with other enterprise systems	 Can push information to Finance’s Bi-Tech
7	MUST have robust GIS integration (prefer bi-directional, view and create GIS data)	 View & Create GIS data

The following is an order of magnitude pricing table. The pricing should be utilized as a guideline but is not an official quote from the software company.

 Hansen 8 Estimated Pricing *	
25 Concurrent Licenses	
Full Product Suite (includes each core product and GIS add-on)	
Total	\$ 92,000
ADD: Annual Maintenance (20% of software cost)	\$ 18,500
ADD: On-Site Specialist (\$ 1,500/day) x 2 weeks (10 days)	\$ 10,500
NOTES:	
* Quote based on verbal communications and should be fully verified in writing by City	
<ul style="list-style-type: none"> • Setup, Implementation, & Training Services included in "On-Site Specialist" cost above. 	

- Data conversion of City's 'PERMITS' Plus data must be a custom quote based on complexity of importation, taking into account:
 - Amount of Programming required
 - Volume of Data
 - Type of Data Imported
 - Time Span of Importation
 - Legacy Format Provided

The needs chart below was compiled based on information provided from each company. A questionnaire was delivered to each company and responses were given in writing or via the phone. Additional information was garnered from each software company's web-site. Each software company was analyzed as to their ability to meet functions and needs identified by the City during on-site interviews. Each function/need is listed on the Y-axis and each software company is listed on the X-axis. The software's ability to fulfill each need is quantified by a thumb-up or a thumb-down graphic. If a function receives three thumbs up it fully satisfies the need. If it receives three thumbs down there is no indication that it will ever satisfy the need. One or two thumbs up or down indicate its current ability of future ability to fulfill the need.

IDENTIFIED NEEDS		City of West Sacramento SOFTWARE SOLUTION PROVIDERS										
		'PERMITS' Plus	Automation	CityView	EnerGov .NET	PLUS SERIES	iCity software	PTWin32v2	PG Govern Software Suite	HdL Software Suite	asyst Product Line	Hansen 8
Web-based with Centralized Management Enterprise-wide Solution Wireless Solutions Use Microsoft SQL Server RDBMS Incorporates the City's existing data (if select new software provider) Mission Critical Integration with Existing Systems	Priority Score											
	10	Velocity Hall or developed in-house		Built on Microsoft Windows Smart Client platform, thus allowing flexibility of both live feed and disconnected state		Only certain modules are Web based	Cannot be done	Cannot be done	Citizen portion is web enabled. In development for all other products	Cannot be done	Cannot be done	Only in Version 8
	10	Some additional functions are needed.	Part of new system	Asset Management/CIP can be developed through Application Builder	Missing Various Components	Missing Various Components	Missing Various Components	Missing Various Components	Includes Asset Management/CIP	Missing Various Components	Includes Asset Management/CIP	Includes Asset Management/CIP
	10	Accela Wireless add-on.	Accela Wireless add-on		Add-on	Can sync with Permitting Data using PDAs only	Cannot be done	Must interface with a 3 rd -party vendor (Penn Systems)	Wireless and Sync capable	In development for Permitting	In development for 2008	Hansen Mobile Solutions (HMS) add-on
	10	Supports SQL Server							Only in Oracle		In development for 2008	
	10	More modules need to be added to house all data	Both are Accela products	Incorporated Accela data many times	Incorporated Accela data many times	Requires specialist on-site. Accela conversions not identified					Can use journal entry export to import into asyst	Incorporated Accela data many times
10											Can push information to Bi-Tech	

IDENTIFIED NEEDS **City of West Sacramento SOFTWARE SOLUTION PROVIDERS**

		ACCELA Government Software	ACCELA Government Software	CityView	EnerGov Solutions	SUNGARD PENTAMATION	VADIM iCity	PTWin32v2	PG GOVERN	THE HdL COMPANIES	asyst	HANSEN
SOFTWARE		'PERMITS' Plus	Automation	CityView	EnerGov .NET	PLUS SERIES	iCity software	PTWin32v2	PG Govern Software Suite	HdL Software Suite	asyst Product Line	Hansen 8
GIS Integration	Priority Score											
	10	Accele GIS add-on (Does not currently utilize new ESRI tools)	Accele GIS add-on (Does not currently utilize new ESRI tools)	Part of Pre-Builts	GIS Integration add-on	Requires specialist on-site	View only	Would have to be customized	PG Govern Software Suite	HdL Software Suite	asyst Product Line	Hansen 8
	9	Available and functioning.	Combining workflow, alerts, and e-mail are an effective way to enforce procedures for managing data input and applications.	Data commit can be turned on or off. Off, data commit to database occurs only when switching sheets, or right clicking and committing. Data validation rules engine is in development		Would require customization		Only some interfaces		Only some fields		Form based to specific departments
	9	Available and will be functioning soon.		Automated parent-child history for locations data		History would be tracked only through reporting tool		Incorporated in Fees/Receipts Module				Historic Parcels are tagged "expired" and can be researched
	9	Working could but could be better.	Done during implementation; system administrators can work the fee table afterwards	City controls a flex fee structure, but they don't have to go into code or business rules engine		Can track multiple fees		Fees module has limited tracking fees	Would customize application for the City of West Sacramento			Rate adjustment feature allows rates to be frozen in time. Hansen can manage multiple fee structures
Hotlinked Scanned Plats	9	Office Link Installed and Functioning								Cannot be done		

IDENTIFIED NEEDS		City of West Sacramento SOFTWARE SOLUTION PROVIDERS													
SOFTWARE		'PERMITS' Plus	Automation	CityView	EnerGov .NET	PLUS SERIES	iCity software	PTWin32v2	PG Govern Software Suite	HdL Software Suite	asyst Product Line	Hansen 8			
Usernames stamp during data input ("Who's done What")	Priority Score														
	9	This capability is available with setup, but is not currently being used.													
	9	Deployed at year end													Would need to be configured
	9	New functionality must be developed													Would need to be configured
	9	New functionality must be developed													Would need to be configured
9	Accela Report Writer also integrates with Crystal, SQL reporting, or Oracle Reporting	Accela Report Writer also integrates with Crystal, SQL reporting, or Oracle Reporting	Active Reports from Data Dynamics .NET. No licensing implications (i.e. Crystal Reports)	Requires Crystal Reports license					Supports industry leaders such as Crystal Reports and Microsoft Reporting Services	Standard and Custom	Standard and Custom using Report Writer Module		Standard and Custom		

IDENTIFIED NEEDS		City of West Sacramento SOFTWARE SOLUTION PROVIDERS												
SOFTWARE		'PERMITS' Plus	Automation	CityView	EnerGov .NET	PLUS SERIES	iCity software	PTWin32v2	PG Govern Software Suite	HdL Software Suite	asyst Product Line	Hansen 8		
Calendaring (Deadlines and Schedule Inspections)	Priority Score													
	8	 Events feature offers custom calendars established for use by individuals or departments. Also, users can define event types that will take place on each activity. Events can be automatically generated for an activity and scheduled onto a calendar	 Two ways: 1. Automation supplies due dates based on task durations, and provides the tracking of each task, staff assignments, status, and task completion. 2. Alert portlet – Alerts based on business rules notify users of business-critical events that require action	 Can interface with Microsoft Outlook calendar	 Calendaring in version 8.0 release this fall. Currently, system schedules inspections and has multiple alternatives of viewing these inspections, and can be integrated with Microsoft Outlook calendar.		 iCity Building Permits/ Scheduling Tool in V2 for all apps		 Calendaring and Integration with MS-Exchange			 Would have to be developed, but can integrate with MS-Exchange		
Security (internal permissions and external gate keeping)	Priority Score													
	8	 Includes 'PERMITS' Administrator, which controls access to modules, menu picks, icons, and screens. Authority can be given for read only or read/write capability. Included are controls for activity default, fee processing capabilities, and reporting capabilities. A clone feature is included so that as new users are added, an existing security definition can be cloned and tailored for the new user.	 Multi-level permissions set by System Administrator	 Granular by being role-based and record-based			 User privileges administered by Client		 The Govern Software offers integration with Active Directory along with its internal security capabilities. It also offers a built-in Audit feature where both user and administrative data could be logged and audited.	 User privileges administered by Client		 Privileges are created by the agency's Administrator for each user		

IDENTIFIED NEEDS		City of West Sacramento SOFTWARE SOLUTION PROVIDERS												
SOFTWARE		'PERMITS' Plus	Automation	CityView	EnerGov .NET	PLUS SERIES	iCity software	PTWin32v2	PG Govern Software Suite	HdL Software Suite	asyst Product Line	Hansen 8		
Document Linking	Priority Score													
	8	Through Office Link												
Photo Linking	8	Through Office Link												
Activity Reminder Prompt (e.g. 30 days after 1 st inspection)	8	A calendar could be defined for this purpose. Calendars can easily be created in 'PERMITS' Plus	Alert portlet – alerts based on business rules notify users of business-critical events that require action	Workflow business rules engine – to-do lists and filters control what user views		Would need to be created	"In development"	Would need to be configured			Cannot be done	Cannot be done	Would need to be configured	
Activity Search across the enterprise	8	Can be accomplished via the built-in extensive search capabilities	Search Tab allows users to specify the partial matching of a set of fixed attributes, and also a set of custom attributes	Project Footprint -- development projects with multiple permits	Extensive search capabilities	Capabilities are limited								
Automated Email Notification (Open/Close status)	8	Can be done with or without the add-on Workflow module and additional programming	Workflow offers user-configurable email notification to automatically alert users assigned to Workflow Tasks of their individual assignments, which is especially useful for more casual system users.	Workflow business rules engine - can input rules to send emails automatically through assigned workflow processes		Cannot be done		Cannot be done			Cannot be done	Cannot be done		

IDENTIFIED NEEDS		City of West Sacramento SOFTWARE SOLUTION PROVIDERS										
SOFTWARE		'PERMITS' Plus	Automation	CityView	EnerGov .NET	PLUS SERIES	iCity software	PTWin32v2	PG Govern Software Suite	HdL Software Suite	asyst Product Line	Hansen 8
	Priority Score											
Court Hearing Material Preparation	8	Letters can be generated w/in PP. The PP Team is working with Code Enforcement on this.		Letter Generator can attach digital documents and/or images into cases/permits, and then create PDFs of those letters		Cannot be done	Cannot be done		PG Govern has specific Hearing and Prosecution functions	Cannot be done	Cannot be done	Would have to be developed
	8	Can be done but not recommended by the PP consultant	Supports Microsoft Active Directory. Once the system is appropriately configured, users simply enter their Active Directory user name and password for authentication to Accela Automation. The user name and password is then authenticated with Active Directory in real time. The user is granted access only if Active Directory approves the user name and password combination.	No because there is no correlation between network security and permit technician security level. They can import user name and password from MS Active Directory			Cannot be done	Cannot be done	Administrators could allow the users to access the application based on their network logon alone or could enforce another layer of logon capability.	No because there is no correlation between network security and permit technician security level. They can import user name and password from MS Active Directory	Cannot be done	Would need to be configured
Balanced Workload Management	7	Can be accomplished through purchase of the Workflow add-on, and additional programming.	Part of calendaring functionality	In development, should be released in 3-4 weeks.		Limited capability with printing a generic hardcopy report	Cannot be done	Would need to be configured		Cannot be done	Cannot be done	Hansen allows manager web access to view cases assigned to City personnel.

IDENTIFIED NEEDS		City of West Sacramento SOFTWARE SOLUTION PROVIDERS												
SOFTWARE		'PERMITS' Plus	Automation	CityView	EnerGov .NET	PLUS SERIES	iCity software	PTWin32v2	PG Govern Software Suite	HdL Software Suite	asyst Product Line	Hansen 8		
	Priority Score													
Letter Writing (automated)	7	Includes 'PERMITS' Composer, which has a comprehensive document processor. This is a powerful tool for creating appealing documents such as permits, inspection cards, certificates of occupancy, licenses, notices, mailing labels, and applications.	RTF Report Writer	Letters & Hearings/Agendas (agencies can batch generate hearing invitations)		Requires Mail merge utility in Microsoft Word			Canned Letters provided for Code Enforcement	PG Govern uses the integrated Crystal Reports to manage this requirement.	Crystal Reports templates with prompts	Utilize Microsoft Word tool Mail merge		Includes Asset Management module
CIP, Development, Redev, and Parks Projects	7	Functionality could be developed	Asset Management module	Can be developed through Application Builder	Supported within the Enterprise modules	Limited Module named "Action"	Cannot be done	Cannot be done	Can link to outside vendor	Cannot be done	Cannot be done	Cannot be done	Would need to be configured	
Bond Tracking and Release in Calendar	7	Will be incorporated for subdivision bond tracking for Engineering projects this year	Not part of current product	Deposits, bonds et al. can be held against contractors or permit/planning applications. They can also be tracked as their own entities or transacted through Cashiering		Cannot be done	"In development"	Automatically Contractor deposits	Included in the base package is bond tracking and Trust Account management.	Cannot be done	Includes Municipal Court Module		Part of Rate Adjustment feature, but would need to be configured	
Special Event Permitting	7	New functionality must be developed	Part of new system										Would need to be configured	
Canned Reports	6	Part of the standard Report Writer Module	Part of the standard Report Writer Module								Standard and Custom	Report Writer Module	Standard and Custom	

IDENTIFIED NEEDS		City of West Sacramento SOFTWARE SOLUTION PROVIDERS												
SOFTWARE		'PERMITS' Plus	Automation	CityView	EnerGov .NET	PLUS SERIES	iCity software	PTWin32v2	PG Govern Software Suite	HdL Software Suite	asyst Product Line	Hansen 8		
Reports by Geography	Priority Score													
	6	Accela GIS add-on provides a direct link between the Agency's GIS data and Accela PERMITS Plus	Accela GIS add-on provides a direct link between the Agency's GIS data and Accela Automation			Report is limited in its display capability		GIS Integration/Filtered Reports - Yes		Standard and Custom	Report Writer Module	Can analyze and report by neighborhood using Hansen GIS		
Complaint Tracking module	6	Accela Service Request add-on. Less functionality available when teamed with 'PERMITS' Plus	Accela Service Request add-on.	Can be developed through Application Builder, and then published via Public Portal	EnerGov Online add-on			Included in CE Module			Cannot be done	Would need to be configured		

References and Testimonials – Issues faced by West Sacramento are not unique. Municipalities across the country have many of the same needs in regards to enterprise software. The following is information from phone interviews with various users of the software products discussed in this document. Each organization was given the same list of questions and their responses are as follows:

City/County	Implementation Date	Contact	Departments that use software system	Positives	Negatives	GIS Interaction	Additional Comments
 Accela's Automation							
Alameda, CA 	In 2000 Went from Permits Plus to Accolade Automation	Erin Garcia, Planning and Building Department	Development Services, Fire, Planning and Building, Public Works	Very happy with Accela hosting the City's data. Accela maintains and upgrades Alameda interfaces with AA via web	True Point Solutions provides all training and support which the City is extremely satisfied with. Accela doesn't respond to questions or issues well and Alameda goes to recommended Accela Vendor	GIS is in beginning stages	Very Happy - Beta Test site, Upgrading Work Flow
Boulder County, CO 	January, 2007 Awarded Accela - January 2008 Implementation for Go Live	Ken Zieberth, GIS Manager	Transportation, Public Health, Planning/Zoning, Permits & Licenses	Liked the Accela Standard Best Practices of Implementation	Because it's an all encompassing system the amount of time to implement	Yes, Will enjoy benefits of seeing data over the web	Extremely satisfied with service
Butler County, OH 	Awarded in 2004 Live October 2006	Cathy Grulic, County IS Admin	Department of Development, Soil and Water Conservation, Health Department	Training Dept for Accela "Exceptional", One System for all Permits, v360 Architecture	Support lacking, however able to use Accela personal contacts from Accela Users Conference for Faster Support	Currently Undergoing Huge Change with GIS, Parcel Conversion this Summer linked to Accela by Parcel ID	Very Satisfied
Orlando, FL 	Homegrown until 98 RFP in early 98 chose Tidemark - Still use Accela Tidemark line - 2000	Jonathan IS Manager	Economic Development, Fire, 105 Concurrent licenses	Tidemark meets existing needs more than latest version of AA.			Crystal Reports Interface in Tidemark
Roseville, CA 	Started Permits Plus in 1998 and currently using Permits Plus	Development Technician in the Building Division	Building Inspection, Engineering, Planning and Redevelopment, Parks and Recreation, Roseville Electric, Fire Department, Refuse, Streets		Permits Plus not able to function with fund releases and bonds like they would like	Not Integrated at all	Selectron - Voice Recognition
 Municipal Software's CityView							
Yucalpa, CA 	July, 2007	John McMains Director of Community Development	Public Works, Planning Building Code Enforcement	In very early stages of development but liked the price and so far Municipal has delivered through all stages to this point.		GIS is maintained by County. Will be getting their own GIS of the ground in "Stage 2" development in Public Works	Admin Users will receive Subject Matter Expert Training September 10th

City/County	Implementation Date	Contact	Departments that use software system	Positives	Negatives	GIS Interaction	Additional Comments
Town of West Hartford, CT 	December 2006	Daniel IS Manager	Building, Public Works	Very Excited with the training.		GIS maintained by GIS Specialist but expect smooth transition with GIS Data	Very early stages of implementation - Migrating Building Data from Clipper (Clix) - Dbase IV
Reedley, CA 	August 2006	John Karlie Building Official Phone: (559)637-4200, Ext. 225 john.karlie@reedley.com	Fire Department maintains Code Enforcement	No Pluses, The city of Reedley has been unable to get CityView implemented	The Desktop application doesn't work, the Intranet application works extremely slow	Developing their GIS currently	Building went out on their own to use CRW's Trakit software. CRW is able to do everything CityView is capable of doing.
 EnerGov .NET							
Orange City, FL 	6/6/2005	Ada Sallie Long Customer Service Specialist II (EnerGov Admin) (386) 775-5425 slong@ci.orange-city.fl.us	Planning & Zoning Building - payments Code module - include mobile add notes Business Licenses GIS integration	Transferred from Black Bear (DOS-based), called "old permits" for recognition Very expandable Unlimited -- administer the whole system Best tech support ever seen Cert. of Occupancy was added -- didn't have suite info., County wanted electronic reports, called EnerGov and setup certain things on the report & done in 1 day Tech services are wonderful Off-site downloads New sign ordinance -- non-conforming must conform in 2011, took pictures & attached to case	Error codes every once in awhile & tech services take care of it Little to none	Sits on top of ESRI license, she does not use it Select area & ask how code cases within there	Wouldn't know what the City would do without it Combined & sharing data -- not running around in their own circles Tailoring EnerGov to match legacy system 60-years-old & I can use it

City/County	Implementation Date	Contact	Departments that use software system	Positives	Negatives	GIS Interaction	Additional Comments
 Blue Springs, MO	End of March 2007	Scott Allen Community Development Director 816-228-0207	Community Development (Planning & Codes) Public Works (Eng. Div.) Finance - Water Billing. clerks (read-only)	Fully customizable – they worked with us on-site for many days/weeks Built a number of custom elements Reports based off of Crystal Reports -- easy to run & interface with other reporting throughout the City Tab-based, easy to navigate Support has been responsive	Number of issues from customization - "double-edged sword" mobileGov starting at brand new -- alot issues from customization Agencies must be aware of hardware/communications issues Yet to receive 1st service pack Domino effect from custom changes Taken long time to get 100% functionality -- a lot of little fixes & upgrades (some we get, some we don't)	Not at this time, but working with GTG to geocode EnerGov records	
 Fairbanks, AK	3/1/2006	Francine J. Birkliid, Administrative Assistant: 1(907) 459-6720 fjbirkliid@ci.fairbanks.ak.us	Building, Public Works, Fire and Engineering	Easy to Learn and Navigate	Support has been Frustrating, EnerGov has failed to fix problems over a long period of time		Have been on EnerGov for a year and 1/2
 SunGard Pentamation's eCommunityPLUS							
 Peoria County, IL	2004	Paul Peterson 309-672-6056 Tom Seckler 309-672-6961	HR payroll	Allowed the county to move to a windows environment from Unix	Reports don't provide enough information	Not using with GIS	good package, good support, responsive customer service
 Vadim Software's iCity							
 Niagara Falls, OT, CA	2006	Kathy Jones - IT (905) 356-7521	Mostly Finance but all departments that use a General Ledger	The General Ledger is comprehensive and thorough and provides everything they need. They stay on top of legislative changes.	Support response time on general issues is very slow except on emergency situations.	She is not aware of their system interacting with GIS but she thinks it probably could.	She would recommend. However, if they are a large city and use this for property tax billing this is very time consuming.

City/County	Implementation Date	Contact	Departments that use software system	Positives	Negatives	GIS Interaction	Additional Comments
 Black Bear's PTWin32v2							
Mason City, IA	December 2003	Ray Quayle 641-421-3620	Permit Tracking, Inspection and Code Enforcement		Memory Hog, need a good IT dept	Not currently interfacing with GIS	Don't buy it, cheap but point and click intensive, not secure, has to open at least 14 windows to bill a job.
 PG Govern Software Suite							
 Pittsfield, MA	February 2007	Rae Ann E. DiNicola- 413-499-9440	Issue Permits, Inspection scheduling for Building, Electrical, Plumbing, A/R, Issue Certificate of Occupancy	None at this time, Still too new	Very slow, five or six different screens to do what one screen in the old program (Permatech)	Not currently interfacing with GIS	Had since April, has not performed to expectation. Preferred old product- Permitech
 Town of Needham, MA	2002	Jamie Sanders 912-554-7093	Appraisers	Are able to make notes and add verbiage not allowed in previous software, run queries and use with Form Builder	multiple screens to view	Yes, works very well. Updates are done weekly	user friendly, rarely have issues and updates go smoothly
 HdL Software Suite							
 Adelanto, CA	December 2006	Judy Bomar 760-246-2300	Building Permits	Able to issue permits	Slow would rather enter manually, not able to track or use with code enforcement	Not fully implemented	75% satisfaction but is not completely implemented at this time
 Montclair, CA	2002	Tenna 760-776-0230	Building Permits, Business Licenses, Massage Permits	Is user friendly,	Time consuming, when issuing multiple permits for a single applicant. Each permit has to be receipted individually instead of a total.		Vendor will do training, but it is easy to pick up on. Rates a 6 on a scale of 10
 Calimesa, CA	December 2006	Dale Everman 909-795-9801	Building Permits	Still learning		Not yet using with GIS.	So far they are happy

City/County	Implementation Date	Contact	Departments that use software system	Positives	Negatives	GIS Interaction	Additional Comments
Highlands, CA	2000	Debbie Ames 909-864-6861	Building Permits, Plan Checks	Once you learn it's easy to use.	Have to select the screen you want rather than be automatically moved to the next screen based on your selections	Not yet using with GIS.	Would rate the software as a 7 after hands on training
	United Systems Technology's asyst						
Peculiar, MO 	2000	Tina Cochran 816-779-5212	Finance Water Department	Modules for General Ledger to Municipal Court. Really impressed. Feel like they have just scratched the surface	Some of the Reporting is cumbersome	No Linkage to GIS	
	Hansen 8						
New Castle County, DE 	2000 (Version 7)	Tim Westbrook 302-395-5229	Building Permits	Like integrated system with GIS and support from Hansen regarding implementation	Everything has to be designed extremely well up front	The most integrated feature that the county likes the best	1 st class system
Las Vegas, NV 	(Version 7)	Diane Cornier 702-229-4788	Public Works Building & Safety Fire Planning Neighborhood Service Customer Complaint Module	Communication has improved between all departments. Condensed all separate databases into one central database	Some of the tools don't work as well as they would like (Financial Ledgering) They use Oracle Financials to complete the task. The scope of the project gets too broad for ideal purposes	Do have; mainly on the asset management site (Water meters)	Support is now highly rated
Fayetteville, AR	2002 (Version 7)	John Goddard, GIS 479-575-8219 Scott Huddleston, IT 479-575-8320	<ul style="list-style-type: none"> Water & Sewer Complaint Tracking Planning Building Solid Waste Parks and Recreation Code Enforcement Inspections 	Do not think they could do better than Hansen	All tools and functions are built from scratch	The GIS Department does not like how Hansen works with GIS. GIS has to add ESRI features for Hansen to relate to geographical data	Hansen support worked great with the City

Conclusion

As previously identified, PERMITS Plus is the lowest cost option for the City. However, the software is being slowly phased out by Accela. Additionally, much of the additional functionality identified by staff would require additional programming. The City should continue to maintain and upgrade PERMITS Plus until a new solution can be acquired. An RFP should be created based on the needs identified in this report. Based on findings of this report Accela Automation, CityView, Hansen and EnerGov .NET seem the most likely candidates to meet the City's needs. Other of the software products were not as suitable based on lack of functionality, a focus more on City financials, incompatible technology, and/or inability to meet many of the seven critical factors identified in this report. As part of the RFP process on-site demonstrations should be conducted to determine if identified functionality truly meets City needs.

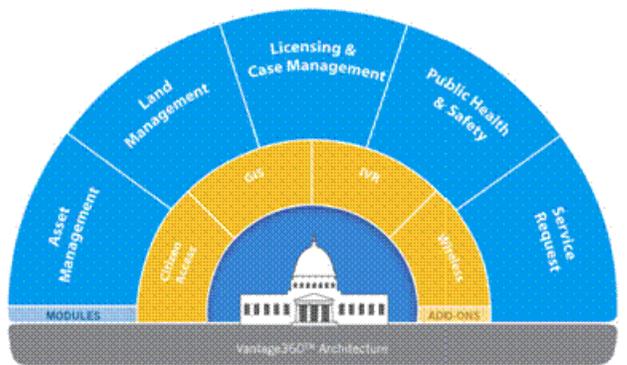
Appendix I – Software Specifications

This Appendix details information provided by each company or gathered from their website. Pertinent modules are documented.



Accela Automation® is a customized application that provides multiple departments a solution to automate workflow, forms management, activity tracking, cashing, and other important daily tasks. A centralized database allows governments to share information across departments and easily configure application types, business processes, fees, and reports to match an agency's practices.

Proven Government Enterprise Software
Accela Automation®: Complete Solution



Accela Vantage360®

Accela Automation is built on the Accela Vantage360 architecture, which integrates enterprise information resources and lets end-users access this information from any perspective.

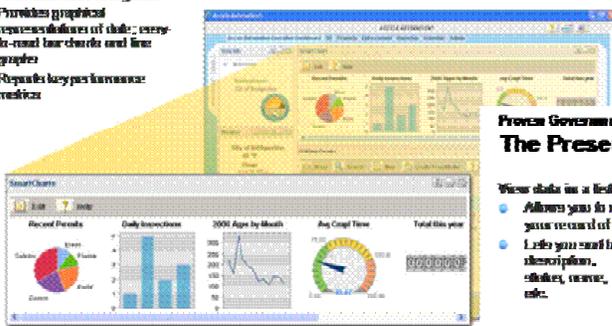
The Vantage360 experience is centered on the user, integrating their data access and preferences into a single interface—the Vantage360 console. End-users can personalize their console from a list of “portlets”, or business functions, and display only the information they use on a daily basis.

By putting users in command of their systems, everyone in the agency can view information from a vantage that best serves their way of interacting with agency data. Portlets offer every

Proven Government Enterprise Software
The Presentation Layer: SmartCharts™ Portlet

View real-time data at a glance:

- Provides graphical representations of data; easy-to-read bar-charts and line graphs
- Reports key performance metrics

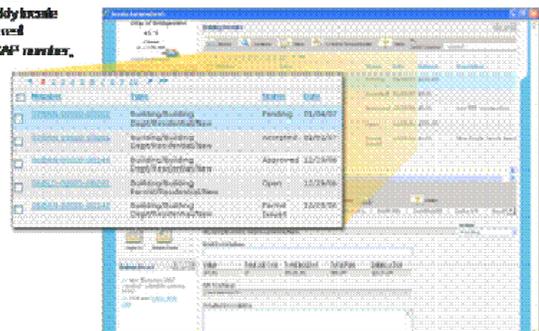


end-user the option to fully customize a portion of their application's daily look-and-feel. Users simply select which data each portlet should pull from, similar to how each individual can choose which options they see on their MSN.com or Yahoo! Home Page.

Proven Government Enterprise Software
The Presentation Layer: List Portlet

View data in a list format:

- Allows you to quickly locate your record of interest
- Lists you sort by CAF# number, description, status, name, etc.



Powerful Business Intelligence

Vantage360 also features a powerful set of common services that allow end-users to enhance the way they interact with agency data.

Document Service	Provides the ability to attach files to data records such as applications, inspections, and service requests
GIS Integration List	Any list portlet that contains address information can utilize Accela GIS to geospatially display addresses for end-users
Auto-Alerts	Alerts based on business rules notify end-users of further action that needs to be taken to process or complete an application
IntelliScript™	A powerful scripting tool for creating step-by-step information gathering or business processes – a perfect tool for training new employees or interacting with citizens for on-line service request submission and other on-line tasks
Data Filters	All list portlets provide data filters so administrators can limit the information end-users can see by role
QuickQueries™	End-users can determine what information they want to see by utilizing QuickQueries that enable them to define and save frequently used queries
Report Manager™	Provides robust reporting capabilities with flexible formatting capabilities to produce professional, printed reports, complete with color graphics and charts. The application also provides reporting via Oracle Reports as well as ODBC-compliant report tools for self-hosted customers.
SmartCharts™	Provide at-a-glance, summarized business information so end-users can view actionable data and take steps to improve agency operations
Workflow	A powerful workflow manager that administrators configure with prerequisite tasks, parallel tasks, etc. and assign workflows to specific application types, service request types, etc.
Event Manager	Executes event-based processes such as generating e-mail messages or calling external systems

The Accela Automation enterprise application includes “Modules” and “Add-On” products:

Accela Automation Modules

Modules automate activities of a single department or work as an enterprise solution to manage the services of an entire jurisdiction:

- **Accela Asset Management™** tracks and manages assets and resources, providing an automated solution for costing, inventory, maintenance, investigations, and inspections. Accela Asset Management is flexible enough to manage entire assets fleet, street,

ACCELA ASSET MANAGEMENT

• **Core Features**

- ▶ **V360 Portlets** – Configurable screens and overall product layout
- ▶ **Paintable Screens** – Adjustable field labels and locations
- ▶ **Form Filters** – Departmentalize views of data
- ▶ **Data Filters** – You only see what you want to see



water, wastewater, parks and recreation, plant and facilities, sewer, railway, roadway, and more.

Asset Management automates all the activities associated with the tracking and managing of a community’s assets and resources while improving efficiencies, reducing costs, and ensuring that the public is able to consistently enjoy optimal use of the infrastructure and facilities that improve and enhance their quality of life.

The Accela Automation Asset Management module bundle:

Public Works	Wastewater Collection	Water Distribution
<ul style="list-style-type: none">  Street  Sidewalks  Equipment  Signals  Lighting  Culverts 	<ul style="list-style-type: none">  Mains  Service Lines  Nodes  Manholes  Lift Stations  Treatment Plants 	<ul style="list-style-type: none">  Mains  Service Lines  Hydrants  Valves  Backflow Preventer  Meters
Street Transportation	Parks and Recreation	Fleet Management
<ul style="list-style-type: none">  Roadways (Pavement)  Signs  Intelligent Traffic Systems  Bridges  Intersections  Lights 	<ul style="list-style-type: none">  Parks  Property  Landscaping  Trees  Buildings  Vehicles 	<ul style="list-style-type: none">  Vehicle  Parts  Equipment  Fluid Storage

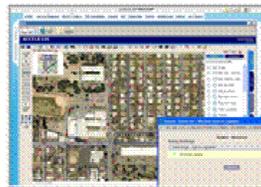
Treatment Plants	Storm Water Management	Facilities Management
<ul style="list-style-type: none">  Complex  Treatment Plant  Equipment  Pump  Fluid Storage  Security Camera 	<ul style="list-style-type: none">  Mains  Inlets  Storage Basins  Manholes  Levees  Channels 	<div style="border: 1px solid gray; padding: 5px;"> <ul style="list-style-type: none">  Complex  Property  Building  Equipment </div>

Integrate with GIS and SCADA (Supervisory Control and Data Acquisition) systems to analyze data on assets in a highly visible way that enables sound decision-making

through the evaluation of an asset's condition, in turn helping to decide if repairs need to be performed. SCADA refers to a system that collects data from various sensors at a factory, plant or in other remote locations and then sends this data to a central computer which then manages and controls the data.

ACCELA ASSET MANAGEMENT – ACCELA GIS

- Built on ESRI ArcIMS
- Leverages both ArcSDE features classes and ESRI Shapefiles
- Common GIS features:
 - ▶ Buffer
 - ▶ Query
 - ▶ Geographic Selection and Identity tools
 - ▶ Proximity Alerts (aka Location based analysis)
- Built-in GIS data creation tools (ArcSDE required)
 - ▶ Quicker response times
 - ▶ Accela Automation info accessible in field
- Future Product direction - ArcGIS Server Integration



and track infrastructure activities in one integrated system:

Perform Preventative Maintenance

Asset Management provides historical data on infrastructure assets to allow an agency to perform intelligent maintenance analysis and planning. A user can track past work orders by history, costing, parts, location, or any other criteria. This information can be used to schedule preventative maintenance and keep a municipality's assets performing at peak condition.

Generate Customized Reports

The flexibility of Asset Management means that a user can create customized reports to meet all of their agency's needs. For example, find out which assets are due for inspection or maintenance in the coming months and schedule city staff accordingly. Preset time interval (e.g. monthly, quarterly, annually) reports can be created in the system to update management and provide detailed information about how departments are performing.

Optimize Valuable Resources

An automated solution for asset management allows municipalities to combine and analyze information about staff, schedules, work orders, and equipment to make

informed decisions about how to best utilize available resources. The system can also combine repair work and preventative maintenance into one work order, or schedule maintenance in conjunction with labor and equipment availability.

- **Accela Land Management™** tracks and manages all land use and community development activities including permits, building safety, inspections, investigations, and reviews, zoning, project plans, code enforcement, and more. It allows city staff to have access to input data, verify activities, check permit status, and obtain complete parcel information instantly. A user can speed up the process of getting from application to occupancy, while reducing errors and data redundancy with a single database.

Land Management can automate the many steps involved with completing a permit:

- Application Check-in
- Plan Reviews
- Fee Calculation and Collection
- Inspections and Investigations
- Sign-offs
- Task Lists

Land Management can manage inspections and investigations by utilizing flexible configurations of the system to assign, schedule, and route assignments to the appropriate person, while defining the sequence of tasks to mimic a department's existing workflow.

The Accela Land Management solution can help an agency manage and track the following activities into one (1) integrated system:

- Building
- Code Enforcement
- Planning
- Emergency Response
- Fire Safety

Develop a Community Master Plan

Utilizing Accela Land Management, an agency can project and manage the growth of their community, services, and resources. The system stores valuable information about a city's resources so they can accurately assess the impact of new projects and concurrency issues.

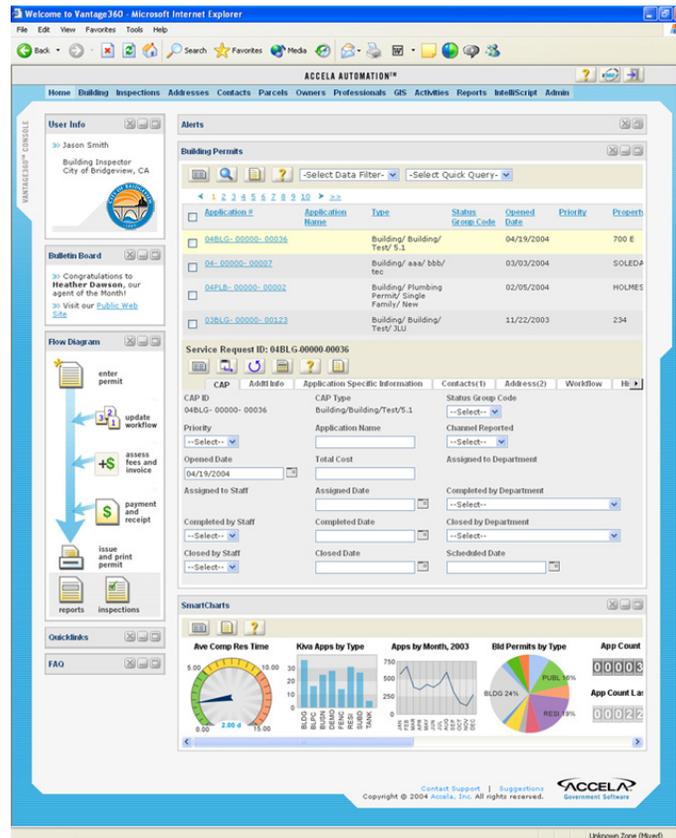
Once the project is approved, Accela Land Management ensures that the project follows the plan guidelines. Components to local regulations like grant variances, set conditions, historical and environmental issues, departmental reviews, and appeals are all tracked and managed in the system.

Administer Effective Code Enforcement

Code enforcement in many jurisdictions is a partnership between government, citizens, neighborhoods, and business groups. Constituents expect timely action in response to complaints or inquiries, and an agency needs to provide efficient, cost-effective code enforcement services. Land Management provides a central database of all activities, people, documents, and other information needed to successfully resolve complex code enforcement issues.

Enhance Mobile Inspections

Armed with a mobile device and Accela Wireless™ add-on software (see further below within the Accela Automation add-on section), field inspectors are never out of touch with the office. Inspectors can interact with the agency database in real time, access their daily inspection schedules, create new cases in the field, and submit inspection results remotely. Customers benefit from faster service and immediate results, and agencies benefit by being able to eliminate paper forms and duplicate data entry.



A Vantage360 console for Land Management

- **Accela Licensing and Case Management™** automates the licensing, registration, and permit application and renewal processes for an agency, including individual and business licenses, simple and complex registrations, occupational licensing, establishment and work permits, or any other licensing procedure.

Licensing and case management are the critical functions that are performed in order to protect the health and safety of the public. Given budget constraints and limited resources, agencies have expressed a need to have technology solutions that can enhance their unique knowledge in helping to create the most effective and efficient methods for handling the processing of licenses, permits, and registrations from application through inspection, and within any investigatory or enforcement actions.

Users can track the enforcement actions that involve licensing and random site inspections, complaint or regulatory investigations, hearing and legal actions, board decisions, and more.

The Licensing and Case Management solution can assist an agency in the management and tracking of the following activities, all within one integrated system:

- Alcohol Beverage Control
- Occupational (Business) and Professional Licensing
- Banks and Financial Institutions
- Environmental Control and Agriculture
- Industrial Compliance and Fire Marshal
- Real Estate
- Weights & Measures

Manage Unlimited Licenses and Cases

Every agency's licensing and registration program has special needs associated with its unique regulations, statutory requirements, and internal procedures. Accela solutions provide the flexibility for managing and processing an unlimited number of licenses and registration types. Licensing and Case Management allows agencies to easily create new case types and business rules to reflect the regulations of a jurisdiction.

Improve Customer Service

Citizens expect timely customer service when they are trying to obtain the license or registration they need to operate their business. By automating many of the tasks associated with issuing a license — department reviews, sign-offs, inspections, and approvals — staff can provide more efficient, accurate service.

Integrate with GIS

The ability to link to an agency's database is important. By automating map analysis tasks, automatic alerts can inform staff of land-use restrictions, allowing them to respond to the applicant more quickly and resolve situations early in the process. Accela GIS™ allows agencies to share GIS information with the public, enabling citizens to access maps to identify features, print or save maps to their computers, or locate points of interest in and around their cities.

- **Accela Service Request™** automates and manages interdepartmental or citizen service requests, complaints, or inquiries, providing an effective way to strengthen citizen relations. Service Request allows a municipality to organize and manage requests, thereby strengthening citizen relations.

Departments that currently use Service Request have included:

- Call Centers
- Mayor's Office
- Customer Service
- Police
- Code Enforcement
- Real Estate
- Facilities

FEATURES INCLUDE:

Increase Citizen Access

Service Request integrates with an agency's database and provides a public access portal for citizens to create and manage their service requests on-line. Citizens can attach related documents, provide a detailed description of the issue, and request notification when the request is resolved. By offering multiple communication channels to their citizens, government agencies provide services that better meet the expectations of their citizens.

Maximize a Budget

By streamlining business processes with Service Request, government agencies ensure the quality of each citizen contact and improve their level of service. As a result, citizens do not have to make repeated calls, and interactions with local government become a positive experience. A satisfied constituency means the agency can focus more energy on revenue-generating activities.

Improve Customer Service

By automating the service request process, in addition to providing a centralized database for this information, Service Request ensures that an agency is able to access real-time information about the status of any request at any time. Managing the information through the interface is uncomplicated, saving staff time and reducing their overall response time to incoming requests.

Assign Projects Automatically

Service Request allows a municipality to automatically assign service requests based on a variety of criteria that help determine who is most qualified to handle the request. Additionally, alerts can be set to automatically request a follow-up action or additional information. By automating internal procedures, city services can be provided consistently and thoroughly to all citizens.

Utilize a Knowledge Base

As requests are received and stored in a centralized database, users can begin to take advantage of a growing knowledge base. This library of information can be used to provide consistent answers to customer issues, generate a list of FAQs, and provide senior management with information about the most prevalent concerns in the community.

Use IntelliScript™ Technology

IntelliScript technology allows a user to create customized call scripts for service professionals so they can ask the right questions and request the necessary information. The same scripts can be used to build a public access portal for reporting service requests via the Web. IntelliScript ensures that all of an agency's citizen contacts are handled consistently and with the high service quality that government agencies demand.

Accela Automation Add-on Products

Add-on products expand and enhance the functionality of the Accela Automation application, including:

- **Accela Citizen Access™** delivers a cost-effective way to move traditional counter services to the Web, providing citizens and businesses with easy and convenient online access to government services.

In today's fast-paced world, people have come to expect immediate access to information. For government agencies, moving their traditional counter services to the Web is a cost-effective way to provide better services. Citizen Access allows agencies to interact with citizens in a more meaningful way, by providing on-line access to government services and information.



Example of the Citizen Access add-on application window

Provide a Complete Solution

Accela Citizen Access provides a complete solution from start to finish. Citizens can access services and carry out entire processes on-line—from looking up information, to applying and paying for permits, to printing off completed paperwork, citizens save time and money by taking advantage of many government services from the convenience of the home or office.

Increase Productivity

With an e-government solution that is available 24 hours a day, agencies can provide better, faster services to their citizens. Streamlining processes and providing more self-service options means that permits and applications that used to take weeks to complete now just take days. Citizens are happy because they are receiving services more efficiently and staff have more time to focus on other job functions.

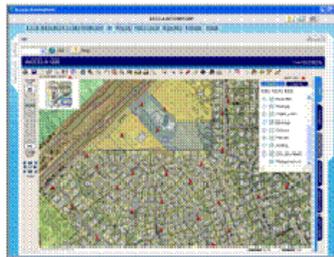
FEATURES INCLUDE:

- Convenience of access 24/7
- Check the status of plans, inspections, or projects
- Schedule and sign off inspections
- Set up fees and business rules to allow for on-line payment
- Reduce call volume by accepting comments, complaints, or service requests via the Web
- Look up information on permits, parcels, and history

- **Accela GIS™** gives staff direct access to view geographic representations of all land use, zoning, and infrastructure information associated with a parcel, permit, inspection, or plan. By using the Accela GIS application, agencies can reduce time in the field and lower associated costs through map analysis.

**Proven Government Enterprise Software
Accela GIS**

- Built on the ArcIMS™ platform by ESRI®
- Leverages GIS database to automate map analysis
- Enables non-GIS staff to generate complex map displays and run reports; GIS staff can concentrate on more critical tasks
- Speeds up review process by graphically representing a broad range of complex geographic information
- Improves decision-making by presenting maps with current information
- Automates complex, repetitive tasks

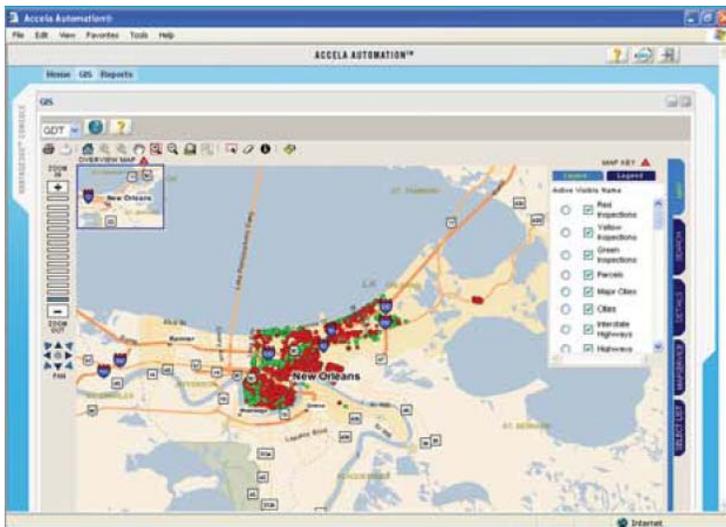


Accela GIS seamlessly integrates with Accela Automation to provide real-time visual analysis to enhance land-use, zoning, and infrastructure data. It allows for the creation of multiple map layers, automated map analysis, parcel and asset inventory management, direct editing of

GIS data or files, and auto-distribution of information to mailing lists. It is built on the ArcIMS™ platform by ESRI.

Maximize Time in the Field

Field inspectors spend time traveling to and from inspection sites. Often travel time comes at the expense of being able to complete additional inspections. The route optimization feature of



Accela GIS can help minimize the time spent traveling between various inspection sites by mapping the most expedient path based on the locations of the inspections scheduled for that day. Inspectors maximize their time in the field and complete more inspections per day.

Automate Map Analysis

Accela GIS enables bi-directional data exchange between a government's existing GIS geodatabases

and an agency's land management system. Alerts can be created that trigger when an end-user tries to initiate a permit or license that fulfills a certain geographic criteria. If there is a potential violation, the permit is automatically stopped in the process, saving time for agency staff and minimizing frustration for the applicant.

Create Multiple Map Layers

Map layers created with Accela GIS are available to every employee across multiple departments. Enabling staff to look up property, land-use, and zoning information as

well as water, sewer, and electrical maps with just one click means that decisions are made more quickly and applications are processed much faster.

FEATURES INCLUDE:

- Speeds the review process by graphically representing a broad range of complex geographic information specific to the active case, application, or permit
 - Improves decision-making by presenting maps that provide review personnel with current information
 - Provides excellent and clear means to communicate with staff, council, and constituents by providing maps and other enterprise data
 - Automates complex, repetitive tasks such as generating mail lists for variance notifications
 - Allows GIS technical staff to concentrate on critical, complex tasks by enabling non-GIS staff to generate complex map displays and run reports
- **Accela Interactive Voice Response (IVR)™** an interactive voice response system, provides customers with 24-hour access to permit and inspection services. Staff and citizens can request, check, and verify permit applications and inspections from a touch-tone phone, at any time.

Access Information Anytime

In any building project, time means money, and keeping inspections moving is one of the best ways to save both. Accela IVR allows contractors, inspectors, and the public to access inspection schedules and information over a touch-tone phone, 24 hours a day, 7 days a week.

Update Data in Real-Time

In real-time, Accela IVR lets agencies interact with the inspection data to request, reschedule, or cancel inspections; users can even retrieve inspection results as well as permit application status. All inspection changes and inquiries are immediately posted to an agency's Accela database for staff and other departments to use.

FEATURES INCLUDE:

- Extend hours of operation by making services available 24 hours a day, 7 days a week
 - Streamline and accelerate the entire inspection workflow
 - Remove geographic and time barriers to accessing inspection information
 - Improve customer relations through 24-hour self-service
 - Expand call capacity faster and at a lower cost
 - Configure the call menu to reflect existing business processes
 - Process more inspection requests without straining personnel resources
 - Automate routine tasks, such as scheduling inspections, posting inspection results, and retrieving inspection results
 - Allow inspectors to post inspection results from the field
 - Enable citizens to request inspection information via fax
- **Accela Wireless™** is a mobile government application that extends processing capabilities to the field for inspections, investigations, code enforcement, work orders, service requests, and more. Accela Wireless is compatible with PDAs, laptops, and Tablet PCs running on the Microsoft Pocket PC, Windows 2000, or Windows XP



operating systems. Accela Wireless is optimized for Intel® Centrino® Mobile Technology, allowing users to take advantage of many features that facilitate data transfer and power management.

Create Inspections/Inspections in the Field

While in the field responding to reported code violations, enforcement staffs often come across additional violations that have yet to be reported — abandoned vehicles, illegal signage, or lack of landscape maintenance for example. Accela Wireless allows inspectors to view current parcel data or code violation history by remotely accessing their land management database. Inspectors can then create new cases on the spot using the most current information available.

Enhance Mobile Inspections

Accela Wireless ensures that even when inspectors are out in the field, they are never out of touch with the office. Inspections can be assigned, rescheduled, or canceled at the last-minute and an alert can be sent automatically to the inspectors via the mobile device. Inspectors won't waste time driving to and from inspections, maximizing their time in the field.

Perform Rapid Damage Assessment

Following any major disaster, reliable and immediate information is the most valuable tool for jurisdictions to have as a means to assess the damage and create an accurate recovery plan. Accela Wireless enables emergency response teams to report real-time data from the field, streamlining the damage assessment process and improving agency responsiveness.

Features:

- Create new inspections or investigations
- Cancel, reschedule, or reassign field appointments
- Sign-off inspections
- Utilize checklists
- Review case, application, or permit summary
- Correct and resubmit failed transactions
- Create new case, application, or permit with new inspection or investigation
- Customize labels
- Access multiple investigation or inspection lists
- Utilize off-line capabilities when in a remote area
- Track inspection time and mileage
- Optimize travel route for daily inspections or investigations
- Draw and attach sketches to cases and inspections
- Create and print reports in the field
- Utilize standard comments to save time

CityView[®] CityView[®] by Municipal Software

CityView is a complete solution, and offers the choice of out-of-the-box PreBuilt applications or an Application Builder to develop an agency's own custom solution. Municipal Software, the company who provides the software, also offers CityView Services, which includes installation, training, and customer support to ensure a successful implementation and quick Return On Investment (ROI).

The CityView software suite is comprised of three (3) components:

- CityView PreBUILTs
- CityView Application Builder
- CityView Services

PreBUILTs are out-of-the-box solutions that give agencies all the forms, reports and automation needed to streamline business processes and efficiently manage departments. CityView PreBUILTs are based on the best practices of leading jurisdictions across North America; they get an agency up and running in 90 days and do not require software development resources.

- Up and running in 90 days for a fast return-on-investment
- Packed with intuitive forms, reports and automation to make jobs easier
- Use wherever employees work – on the desktop, in the field and on the Web
- Create a complete enterprise system by using multiple CityView PreBUILTs together
- Integrate with existing GIS and financial systems
- Includes CityView Services full support and training

CityView PreBUILTs are different from others because agencies can use CityView Application Builder to unlock features that let users change CityView PreBUILTs to match exact needs, evolving the applications in conjunction with organizational growth. Agencies never have to re-purchase CityView or start from scratch again, thanks to CityView Application Builder. This means that when an agency buys a CityView PreBuilt and CityView Application Builder, they not only treat themselves to a quick and effective solution, but they also invest in the power of complete control and flexibility, for the life of the software.

CityView Application Builder is a unique toolkit that gives agencies the power to develop their own applications and/or change CityView PreBUILTs to evolve with an organization. With CityView Application Builder, municipalities get the tools they need to create the exact applications they want for the desktop, in the field, and also on the Web.

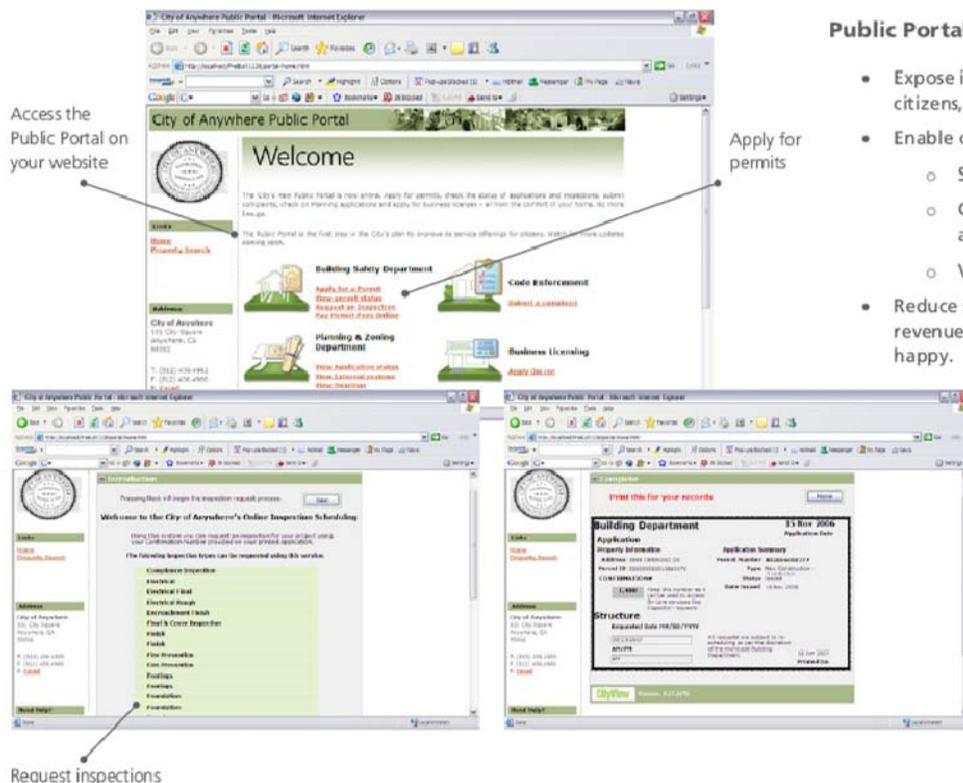
- Agencies can create their own custom applications in CityView Application Builder without necessary, and oftentimes expensive, company software programmers.
- Create own custom applications in CityView Application Builder without expensive software programmers.
- Seamlessly integrate with existing departmental, financial and GIS systems.
- Customize the CityView PreBUILTs applications as business process needs evolve.
- Includes CityView Services full support and training.

CityView Services offer access to Municipal Software's team of experts who will get an agency started with CityView PreBUILTs and/or CityView Application Builder. With over 25 years of experience, Municipal Software can share their knowledge base and provide

installation services, training, and support for a successful implementation and ongoing system maintenance.

- Installation – Municipal Software’s Project Managers partner with an agency to create a Project Plan, convert pre-existing data, and also install and test the new CityView system.
- Training - training courses provide agencies with everything they need to know about CityView PreBUILts and/or CityView Application Builder.
- Support – Municipal Software’s goal is to resolve any issue on the same call, and most issues are resolved in the same day, via telephone, email or online support.
- Custom Development –Using CityView Application Builder, company representatives will build or customize applications to meet an agency’s particular needs.

CityView Public Portal add-on allows the general public to view customized summarizations of an agency’s permitting software data. The Public Portal component enables citizens to self-serve online by scheduling inspections, complete permit applications, and view property information. An agency can drastically reduce staff time in response to these routine daily tasks, thereby freeing them to perform ROI duties instead.



Public Portal

- Expose information and services to your citizens, for convenience.
- Enable citizens to self serve online:
 - o Schedule inspections;
 - o Complete permit applications; and,
 - o View property information.
- Reduce staff workload, increase revenue, and keep your customers happy.

CityView offers general public access through the Public Portal add-on

CityView prebuilts



Includes:

- Property Information
- Permits & Inspections
- Planning
- Code Enforcement
- Licensing
- Cashiering

BENEFITS INCLUDE:

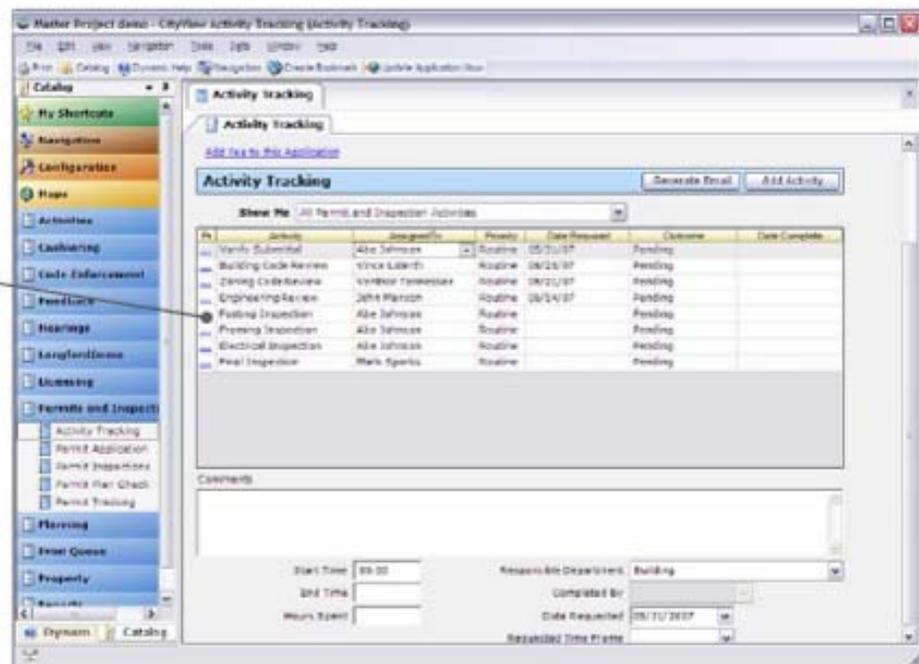
- **Automated Business Processes**

Increase user productivity by streamlining workflow and business processes:

- Automate Workflows

Automate common business processes related to Community Development activities with predefined workflows that save time by providing agencies with the tools to manage and track assignments; define deadlines; automatically generate subsequent activities and create a record of business processes.

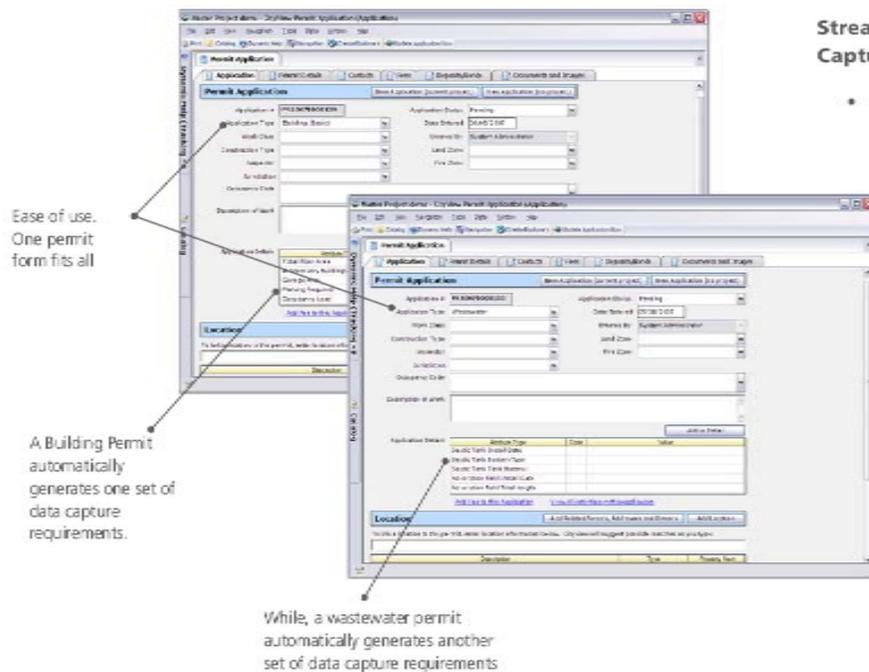
Predefined workflows are automatically generated.



Example screenshot of Automated Workflow

- Optimize Data Capture

Accurate information from each of the workflow activities is captured through a series of intuitive, easy-to-use forms that prompt the end-user for required data.



Streamline and Optimize Data Capture Requirements

- Using Attributes, capture permit-specific data:
 - Helps the end-user know what data to enter.
 - A single form can be used to capture the data required for any permit types, whether it be building, public works or parks and recreation.

Example of Data Capture

- Increase Revenue
Eliminate inaccurate fee collection with an integrated fees module that enables agencies to automatically configure, calculate and collect fees using even the most complex fee structure.
- **Find and Use Information**
Empower users by making it easier to find and use information:
 - Centralized Access
Centralized data access allows all staff to view all information associated with an application, case or plan including documents and images instantly.
 - Easy Navigation
Powerful search and sorting capabilities save users time by quickly finding everything related to a case or permit.
 - Access Data Externally
A number of remote or disconnected options allow users to access information anywhere – at the office, at home, or in the field – reducing transit times and data entry duplication.

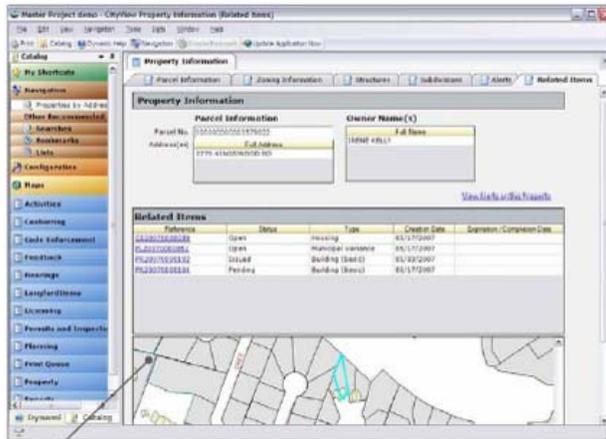
Allow constituents to access Community Development services – inspection scheduling, permit applications and property information - on the web; reducing frontline staff’s workload and ensuring that constituent’s service demands are met.

- **Map a Way**

Easily view geospatial information:

- Maximize An Agency’s Existing Spatial Information

Integrated GIS capabilities allow, even non-GIS staff, to quickly locate a job location on a map; measure distance, boundaries and areas, create adjacent and buffered spatial queries for mailing lists and export information to other departmental systems. Further, all staff have the ability to view the complete activity history of a given parcel.



Access GIS information from within CityView or have CityView launch a third party mapping viewer and place the user in the property being examined in CityView.

GIS

- With CityView PreBUILTs using maps and map data is easy for all users, even non-GIS staff.
- CityView PreBUILTs offer a set of easy-to-use mapping tools designed for everyday users to:
 - Locate properties;
 - Measure distances, boundaries and areas;
 - Create buffer zones to generate mailing lists for property owners within a certain distance; and,
 - Export information to other departmental systems.
- Visibility of all activity, present and historical, on a given parcel of land.

CityView can interact with an agency’s existing GIS data

- **Meet Changing Business Needs**

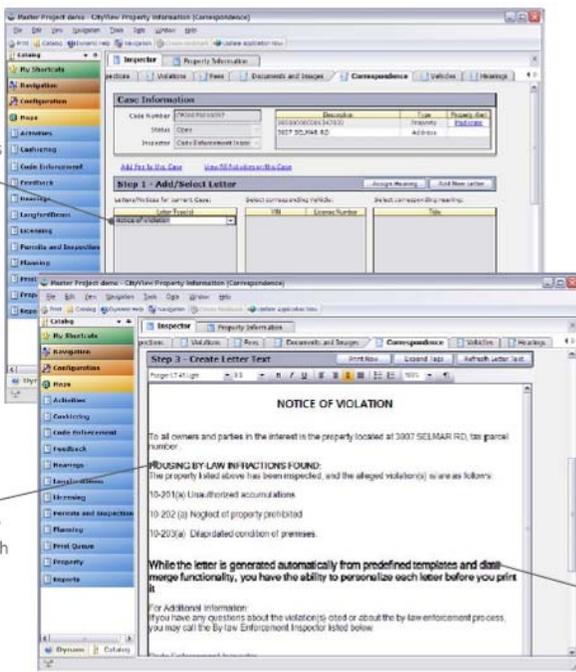
Customize and configure CityView to meet evolving needs:

- Be Flexible

Preconfigured, built-in process and workflows based on best practices ensure immediate ROI. While the CityView Application Builder provides intuitive tools that allow agencies to configure permits, letters, referrals, inspection, and other business workflows to suit an agency’s exact needs, it also ensures that the CityView solution always matches an agency’s processes.

- Design a Custom Application

Intuitive customization tools allow agencies to grow their CityView PreBUILTs as an organization grows, and to create unique applications like an Asset Maintenance Tracking system. If an agency can conceive it, they can build it with CityView Application Builder.



The screenshot shows two windows from the CityView software. The top window is titled 'Master Project data - CityView Property Information (Correspondence)'. It displays 'Case Information' with fields for Case Number, Status, Inspector, Description, Log, Priority, and Address. Below this is 'Step 1 - Add/Select Letter', which includes a table for 'Notice of Violation' with columns for 'Notice of Violation', 'Log Number', and 'Status'. The bottom window is titled 'Master Project data - CityView Property Information (Correspondence)' and shows 'Step 3 - Create Letter Text'. It displays a 'NOTICE OF VIOLATION' letter template with fields for 'To all owners and parties in the interest in the property located at 3307 SELMAR RD, tax parcel number:' and 'VIOLATIONS BY LAW INFRACTIONS FOUND:'. The letter text includes 'The property listed above has been inspected, and the alleged violation(s) is/are as follows: 10-201(a) Unauthorized accumulations, 10-202 (a) Neglect of property prohibited, 10-203(a) Dilapidated condition of premises.' A note at the bottom states: 'While the letter is generated automatically from predefined templates and data merge functionality, you have the ability to personalize each letter before you print it.' Annotations with arrows point to the left sidebar (labeled 'Pre-defined Letters & Notifications'), the 'Notice of Violation' table (labeled 'Automatically populates with relevant information'), and the letter text (labeled 'Personalize each letter as required.').

Correspondence

- CityView PreBUILTs include Letters and Notices used in keeping contacts up-to-date on permit status, case actions, development project approvals, hearing notices and much more.
- Letters, Notices, Issuances can be easily created or modified to reflect your unique message requirements.
- Letters and Notices can be displayed and printed individually or in batches from a print queue.
- Correspondence is professional, quick and personalized.
- All correspondence generated is captured as a permanent record in the permit, development or case file.

PreBUILTs allow users to customize automated correspondences

- **Improve Reporting**

Accurately identify and track successes and issues in real time:

- o Out-of-the-box Reports

Detailed out-of-the-box reports provide immediate visibility on daily business activities such as the status of all Building Permits, while statistical and summary reports allow agencies to track performance metrics such as the number of cases assigned to each Inspector.

- o Customized Reports

CityView PreBUILTs have powerful ad hoc reporting abilities that allow users to extract precisely the information they require. Enhanced searching, filtering, sorting and data export features are combined with a flexible reporting engine to maximize reporting potential. And the ability to export the data to common file formats like Excel and PDF means that agencies can easily share that information with the rest of the team.

Permit Report - 2005
April

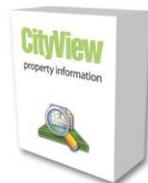
Permit Type	Number	Value	Category	Sub-category	Cost	Sub-cost
Building	17	\$2,261,805.00	Electrical 2	\$2.00	Building	\$11,420,170,000.00
Dock	13	\$47,675.21	PMAC 1	\$3.00	Electrical	\$5 \$3.00
Electric	35	\$2.00	Plumbing 1	\$2.00	Fire Alarm	2 \$3.00
Fence	17	\$41,900.00			Fire	0 \$45,283.00
HVAC	31	\$2.00	Seismic	\$2.00	HVAC	5 \$3.00
Pool Alarm	1	\$7,000.00			Pool Alarm	1 \$3.00
Pool	4	\$4,380.00			Supervisor	
Pool Barrier	1	\$11,000.00			Plumbing	7 \$3.00
Sign	1	\$1,270.00			Sign	2 \$4,270.00
Shelving	30	\$2.00			Signage	1 \$3.00
Stack	1	\$5,400.00			Stack	
Roofing	14	\$48,553.00				
Seismic	5	\$2.00				
Site	5	\$3,389.00				
Sign	4	\$2.00				
Windows	3	\$7,714.00				
Total	52	\$20,357,402.00				

Reports

- Canned, out-of-the box reports
- Ad hoc reporting
- Complex reports with an in-built, powerful reporting engine called Active Reports.
- Reports from third party reporting systems such as Crystal Reports or SQL Reports.

PreBuilds allow users to customize automated correspondences

CityView
property
information



CityView Property Information provides users with a powerful inventory of their organization's property base to help staff find information quickly. Rapidly view all data and land management activities associated with a given parcel.

The Power of CityView Property Information

Cohesively track and manage all land use, zoning and community development activities in a central location with CityView Property Information. Easily view development permits, building and engineering/public works permits, code enforcement violations and development applications, both current and historical, for a plot of land, a parcel, a subdivision and even a roadside vendor. Manage structural information, parcel splits and subdivisions, address and ownership changes and additions

Easily access property and ownership data from third party systems, including an agency's existing GIS through CityView Property Information. Map a way with easy-to-use mapping tools that allow everyday users to locate properties; measure distances, boundaries and areas and create mailing list buffer zones. Based on ESRI's ArcGIS 9.2 technology, maps are embedded directly within the CityView Desktop.

Refine parcel data to include the level of detail needed to complete daily business processes like multiple addresses, ownership and structure information. Subdivide parcel records, and effortlessly track the genealogy of parcels.

Automate business processes like new parcels based on subdivisions, and eliminate time-consuming manual activities, repetitive data entry and inaccurate information.

Streamline and automate Building Department's permit approval and issuance process from initial application to Certificate of Occupancy. CityView Permits & Inspections provides agencies with an efficient approach to permitting that simplifies and standardizes workflows.

CityView
permits &
inspections



Streamline and automate a Building Department's permit approval and issuance process from initial application to Certificate of Occupancy. CityView Permits & Inspections provides an agency with an efficient approach to permitting that simplifies and standardizes workflows.

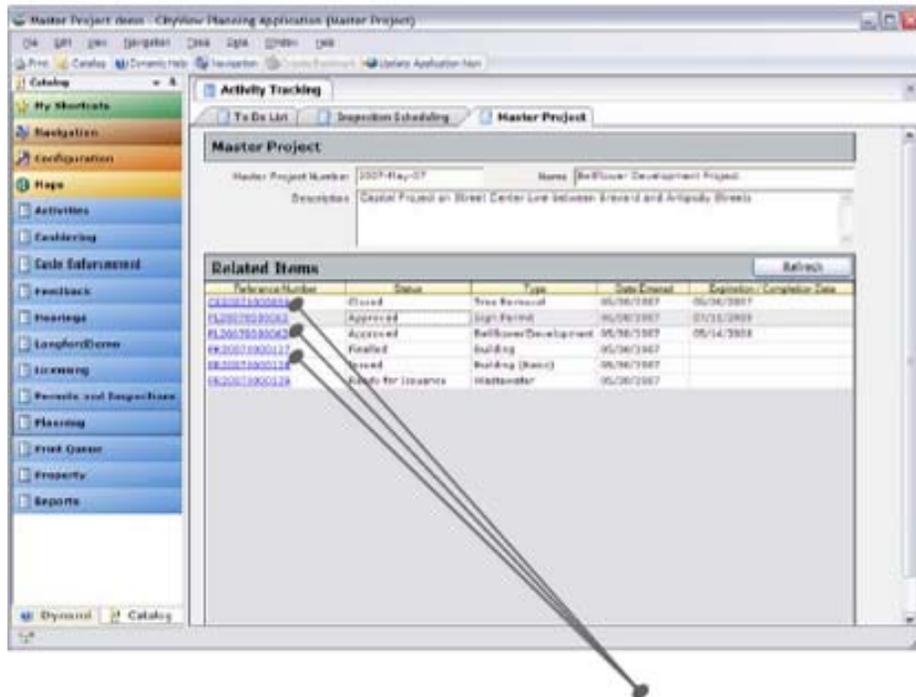
The Power of CityView Permits & Inspections

- **Improve customer service** with real-time status reports that can be accessed by staff or online by applicants via the CityView Public Portal.
- **Automatically assign and schedule inspections** and abolish time-consuming manual scheduling forever.
- **Manage and track permits** in a central location. Everything agencies need to know about a permit from owner and contractor information to related sub permits, utility releases to expiration dates is instantly available and readily accessible by all departments.
- **Streamline business processes** with tailored workflows that allow agencies to define deadlines and automatically create next steps like plan checks and inspections ensuring that all components of a permit application are completed in the correct order and the complete status information is available at any point in time.
- **Eliminate inaccurate fee collection** with an integrated fees module that allows agencies to configure, calculate and collect fees using even the most complex fee structure. Easily manage drawdown of deposits, bonds and escrows and receive notifications when specified limits are reached.
- **Make informed decisions** with intuitive reports that allow agencies to quickly and easily assess the status of all permits and inspections, their related fees and the length of time they have existed in the system.

CityView planning



Track and manage all types of planning and development applications from beginning to end, all while reviewing and meeting mandated milestones along the way. CityView Planning provides an agency with powerful data that ensures staff always has an answer when parties need to know what's going on and why.



Development permits, building and engineering permits all captured in a single, related, project footprint.

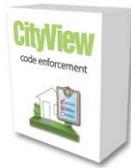
Screenshot of the Planning module

The Power of CityView Planning

- **Automate and monitor complex business processes** to ensure that projects follow the plan guidelines set out for a jurisdiction. Auto-generate approval tracks, process milestones and submittal requirements, and track associated permits and cases.
- **Manage the review process** with a hearings scheduling tool that allows an agency to manage the number of applications for review on an agenda, automatically generate attendance lists for hearings, and tracks external reviews.

- **Ensure deadlines are met** with a series of reports that show the current status of all planning projects as well as the actual time spent on reviews, rather than just the start and finish dates.
- **Create a project record history** by attaching site plans, digital photos, aerial photos, and all other related documents to the application to create a permanent record of the project's activities.
- **Easily view spatial information**, such as land use, zoning and demographic data related to a plan and make informed decisions. Based on ESRI's ArcGIS 9.2 technology, maps are embedded directly within the CityView Desktop.
- **Easily manage drawdown of deposits, bonds and escrows**, and receive notifications when specified limits are reached.

CityView code enforcement



Track and manage code enforcement issues from citizen complaint to case resolution. Created on the principles of priority-based inspector workflow management, CityView Code Enforcement ensures that departments provide consistent, efficient services.

The Power of CityView Code Enforcement

- **Automate and track case activities** in a central database accessible by all departments. Create an audit trail of entire processes from start to finish, including an unlimited number of violations per case, dispositions and case-generated hearings and appeals, thus ensuring that all case milestones are met.
- **Create a permanent case history** that includes digital photos and all other documentation related to a case. Quickly generate and attach professional, personalized correspondence and easily transact citations.
- **Effortlessly organize inspection activities** with automatic inspection deadlines, daily rosters and automatic case assignment based on geography, case type or virtually any other parameter. Generate a daily inspections roster, including links to all case pertinent information that Inspectors can access at their desk or in the field in connected or disconnected mode.
- **Relate code enforcement violations to parcels** ensuring that all departments are aware of outstanding violations and can respond accordingly in fulfilling permit and inspection requests as well as other permissions.
- **Utilize intuitive mapping tools** to create a spatial representation of code enforcement violations and easily assess trend data.

- **Ensure accountability** with powerful reporting tools that allow agencies to review the number of inspections completed by Inspector over a given time period and their case workload.

CityView licensing



Simply and efficiently issue and track licenses for any type of business. CityView Licensing provides an agency with a streamlined approach to licensing that increases revenues, and decreases staff workload.

The Power of CityView Licensing

- **Accurately track licenses and renewals** for businesses and contractors as well as any other type of licenses issued.
- **Simplify workflow** with automations that track, issue and renew expiring business licenses, generate and process batch renewal notices, create tax certificates and produce correspondence logs. Never manually regenerate license renewal paperwork again.
- **Correctly collect fees** by easily identifying expired licenses and accurately calculating penalty and interest charges. CityView's integrated fees module means an agency no longer needs to rely on manual calculations. CityView automatically works it out for users, therefore ensuring accurate mounts and timely collections.
- **Create action items** based on precise, timely data. Flexible reports allow agencies to easily determine the status of all businesses in the system, including whether their license fees have been paid by the expected date and the exact value of these outstanding fees.

CityView cashiering



CityView Cashiering guarantees that accurate, correct revenue collection is no longer an ongoing challenge it's simply a matter of inputting it into the system.

The Power of CityView Cashiering

- **Manage revenues** in a central location for all community development and licensing initiatives. Auto-generate and auto-log transaction numbers, receipt numbers, payment date and payment receiver to create an audit trail of monies received.



- **Easily set up and change fee structures** to meet exact requirements, and set automatic fee activation and expiry dates. CityView automatically calculates and populates the required fees depending on the application type, eliminating manual entry and calculation errors.
 - **Meet all standard cashiering expectations** by splitting payments into multiple payment methods or joining them into a single transaction or reversing, refunding and voiding transactions as required. Update all applications, permits, citations and licenses with fees payment information like payee and receipt.
 - **Understand revenues** with reports that, for example, details all payment transactions for a given time period by account like Building Permit Fees, or by payment method. Browse payment history and export transaction batches into an agency's existing accounting system.
-



EnerGov .NET[®] by EnerGov Solutions

A Complete Custom-Fit Solution

EnerGov .NET is a complete enterprise land management solution designed specifically for community development operations. Developed in Microsoft .NET, EnerGov .NET is designed to increase operational efficiency and to more accurately track and streamline departmental tasks.



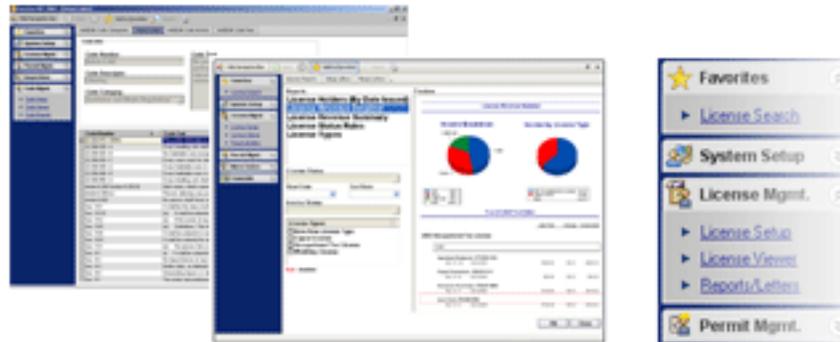
EnerGov .NET offers an enterprise-wide solution

A Proven Solution

EnerGov Solutions is a leading provider of complete Land Management enterprise automation focusing on solutions that streamline and better manage government operations. EnerGov combines years of experience with mature and proven technologies installed nationwide. With EnerGov an agency can be confident that they are selecting the most complete, state-of-the-art solution, designed specifically for their unique jurisdictional needs.

Powerful, Yet Easy to Use

EnerGov has designed the software interface to be intuitive and simple to use, resulting in a rapid end-user learning curve. Features such as a favorites list, notifications and reminders, wizards and other software utilities within the system enhance and simplify the end-user experience.



EnerGov .NET End-User Interfaces

CORE PRODUCT OFFERING

1. EnerGov Permitting (Permit Manager)

- *Specifically Designed for an Agency's Operations*

Developed in Microsoft .NET, EnerGov's Permit Manager brings operational efficiency to an entirely new level, allowing staff to instantly input data, verify activities, check permit status, and obtain complete parcel information quickly and easily.

- *Permit and Inspection Management Made Easy*

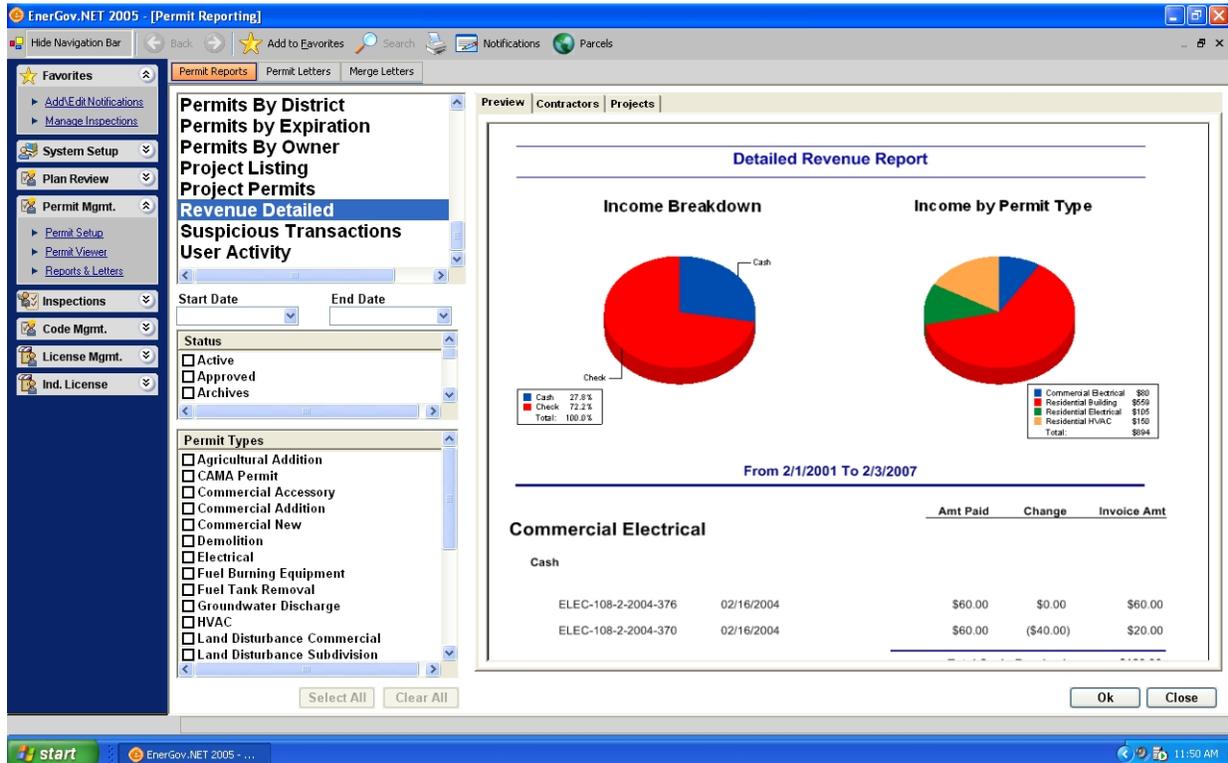
With EnerGov's Permit Manager, agencies can automate the difficult task of completing a permit - application check-in, planning reviews, fee calculations and collections, inspections, sign-offs, task lists, and more. The system integrated wizards will guide users through these procedures quickly and easily.

- *Internal GIS (see below for more information on EnerGov internal GIS)*

EnerGov .NET built-in GIS allows all land management related cases (permits, plans, code cases etc.) linked to parcels to be interfaced with a jurisdiction's GIS data, allowing departments to engage in powerful geographical capabilities.

- *Permit Manager System Features:*
 - Manage unlimited permit types
 - Geographical visual of issued permits
 - Integrate with GIS
 - Geographical Route planning
 - Printing maps/graphical reports
 - Daily Inspection lists
 - Inspection requests from IVR and online
 - Real-time Mobile Inspections
 - Custom setup to mimic current business process
 - Attach CAD drawings, photos and other files
 - Automatic Permit/Inspection Status Applicant Notify
 - Expired Permits System Notification
 - Link Parcel and Parcel Data
 - Automatic Fee Calculation

- Automatic Inspection Generation
- Put a "Hold" /Contractors
- Track unlimited detail about structure
- Manage Special Zoning Requirements
- Seamless Interface with Planning module



EnerGov .NET Report Writing screenshot

2. EnerGov Inspections

EnerGov.NET offers a module that centers around an agency's inspection business workflows. Please see "mobileGov" within Integrated Enterprise Technologies section following the core products for more information on EnerGov .NET Inspections module.

3. EnerGov Licensing (License Manager)

Powerful Licensing Management

EnerGov's License Manager is state-of-the-art software designed specifically for local government operations. Developed in Microsoft .NET, the License Manager brings operational efficiency to an entirely new level. EnerGov's License Manager allows districts to simply and efficiently manage business licenses, liquor licenses, trade licenses, temporary licenses, marriage licenses, animal licenses and any other licenses needed.

Licensing Made Easy

Don't re-enter licenses year after year, renew licenses using the three step renewal wizard that will easily guide users through the process. The system will allow agencies to review licenses based on their status, and even print renewal and late letters for

companies that have not paid. Utilizing EnerGov .NET's batch processing engine, renewals are processed quickly and easily.



Screenshots of EnerGov .NET License Manager

Management Features:

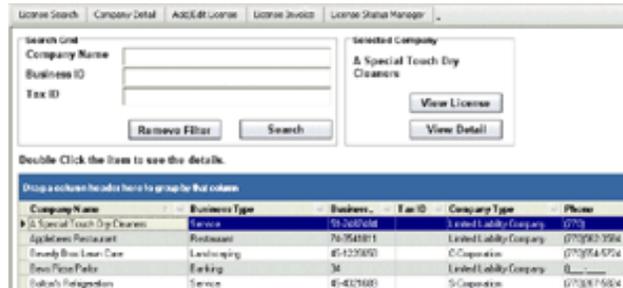
- o Unlimited license/individual permit types
- o Daily, weekly, monthly, expiration cycles
- o Flat/adjustable/percentage fee structures
- o Allow prorating
- o Manage late fees
- o Manage account balances
- o Transfer funds
- o Schedule/manage field inspections
- o Online Renewals
- o Integrate with GIS

Automatically Print:

- o License/Permit Cards
- o Occupational Tax License/Certificates
- o Liquor/Day license etc. Licenses
- o Billing Forms
- o Renewal Forms and Letters
- o Applications
- o Manager reporting
- o Field Citations/Violations

Searching Capabilities:

- o Quickly and easily search by company name, address, business id, EIN, Company Type, and Business Type
- o Search/sort by NAICS and SIC codes
- o Create customizable reports in seconds using EnerGov .NET's report editor
- o Unlimited Business/Entity types allow for easy grouping and reporting

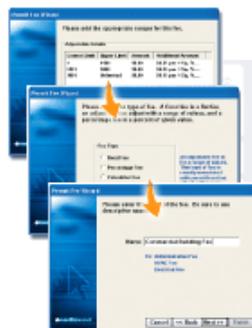


Searching capabilities within License Manager

Time Saving Wizards

The License Manager integrates built-in wizards throughout the software to make complicated procedures quick and easy. Most of these procedures can be accomplished in a simple 3 step process using the built-in wizard. This simplified process also helps the user keep errors to a minimum and provides greater data integrity.

Easy as 1,2,3



Make processes quick and easy with EnerGov's built-in Wizard

4. EnerGov Code Enforcement

Powerful Code Enforcement Management at the Tip of the Fingers

EnerGov's Code Enforcement Manager is smart software that effectively helps an operation track all the necessary information required to quickly and efficiently manage code enforcement issues. Store information vital to code enforcement needs and retrieve the information with ease.

Case Management Made Easy

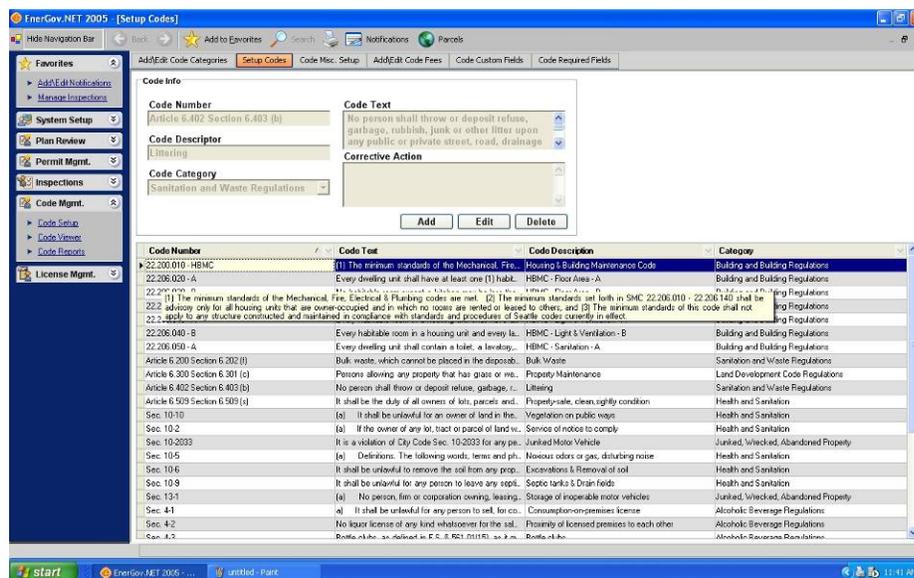
Easily track and manage activities, fees, violations, violators, inspections, letters, compliance deadlines, resolutions and much more. Quickly view compliance deadline reports, citation issuance reports, as well as complete payment reports. Don't let

unresolved code cases slip through the cracks. Improve operations with EnerGov's Code Enforcement Management module.



Attach photos to code violations

Set-up reports and view cases on a map



Easily organize and manage city code through the "Code Setup" tool

Code Enforcement Management Features:

- o Manage unlimited case types/ordinances
- o Track all case activities
- o Geographical visual of violations
- o Integrate with GIS
- o Geographical case assigning
- o Graphical reports/case details
- o Daily inspection lists
- o Citizen access online portals
- o Real-time mobile inspections/case creation
- o Automatic Fee calculating
- o Daily Fine tracker

- Automatic printing of letters/NOV/citations
- Print from the field
- Track compliance deadlines
- Attach photos to cases
- Custom setup/ordinances preloaded
- Automatic case history/agenda printing

5. EnerGov Planning/Zoning

Planning/Zoning Case Management Made Easy

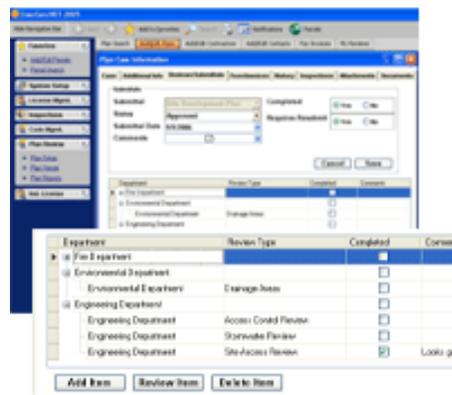
With EnerGov's Planning Module, an agency can track all aspects of the application process. Reviews, discussions, check off criteria can be tracked and stored as permanent records. The planning module also integrates seamlessly with EnerGov .NET Permitting and Inspections modules.

Manage Complex Workflows

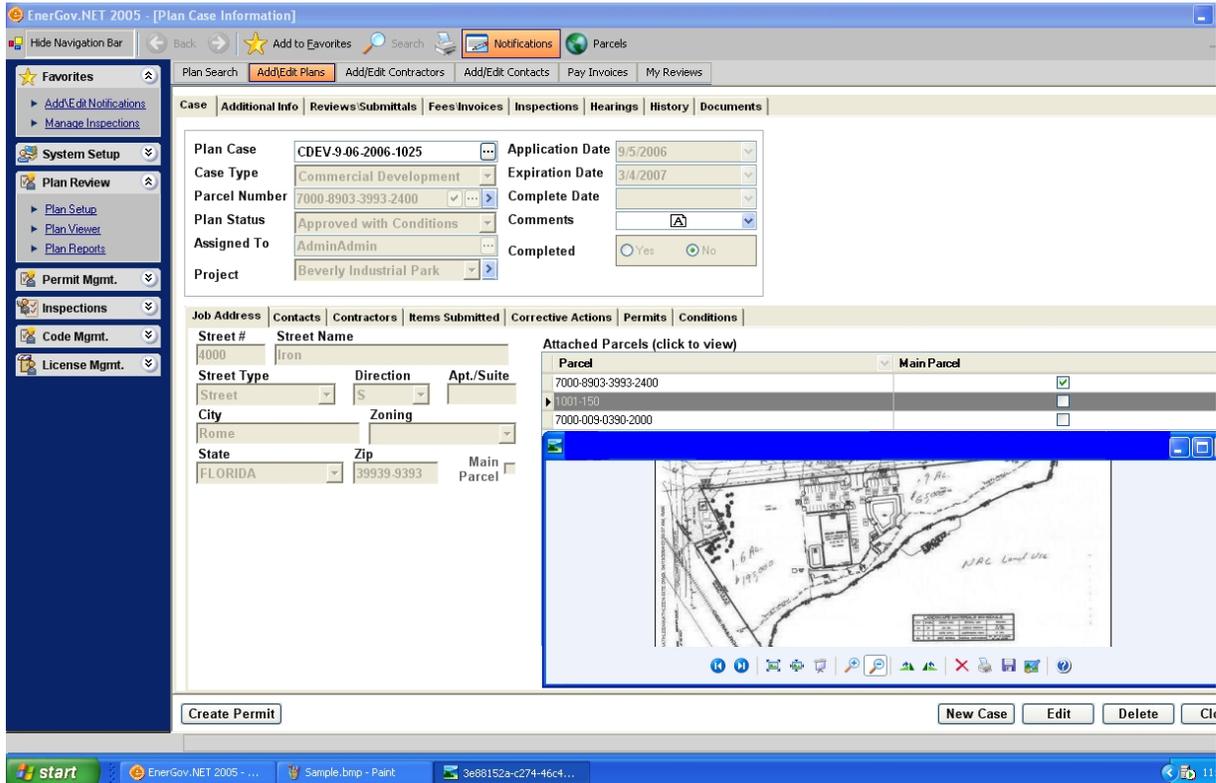
The EnerGov .NET Planning Module tracks application workflows and departmental reviews. Aspects of the review process can be assigned to individuals as well as departments. Deadlines for each aspect of the case can be defined and tracked.

EnerGov .NET Internal GIS

All plan cases can be linked to parcels and directly interfaced with built-In GIS giving departments powerful geographical capabilities.



Store an unlimited amount of Planning cases



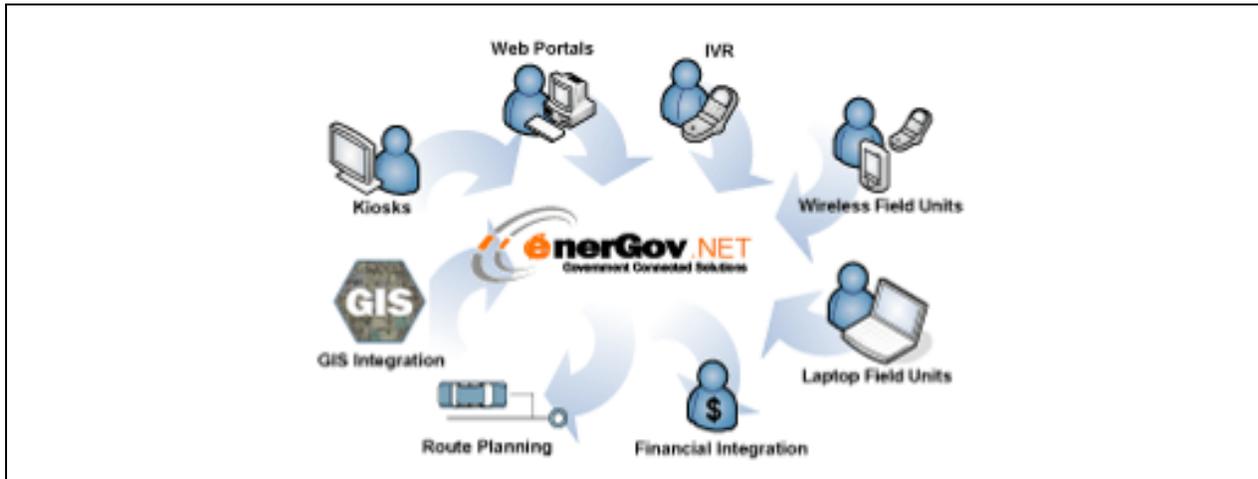
Attach scanned documents to Planning cases

Manages Unlimited Planning Cases:

- o User-Defined Plan Case Type Prefix
- o User-Defined Custom Plan Fields/Rule Enforcement
- o User-Defined Plan Status Values
- o Comprehensive Departmental Workflow Management
- o Automatic Invoice Creation
- o Automatic Receipt Generation
- o Automatic Fee Calculation
- o Fixed-Fees/Percentage Fees/Adjustable Fees/Calculated Fees
- o Fee Groups Enabling Multiple Fee Assignment
- o Affix Attachment/Files to: Plans/Inspections/Parcels/Cases
- o Contractor Expired License Flagging/Notification
- o Plan History Tracking
- o Powerful Reporting

Integrated Enterprise Technologies

EnerGov .NET can be spread across the enterprise through multiple mediums:



EnerGov .NET Different Interfaces

- **Laptop Field Units and Wireless Field Units (e.g. PDA, Mobile Phones)**



EnerGov's mobile field unit solutions provide inspectors with a fully featured inspection management system capable of:

- Sign offs or rescheduling inspections
- Creating inspections in the field
- Generating Re-inspections/Fees
- Printing the inspection detail in the field
- Assigning inspections to a new inspector
- Reviewing past inspection/permit/parcel
- Predefined checklists
- Standardized inspections
- Predefined passed/failed reasons/codes
- Creating a violation case in the field
- Viewing code violations/ordinances
- Printing custom worksheets and reports
- Issuing & printing Citations/Violations
- Issuing & printing Stop Work Orders
- Real-time field/office data
- Researching all Parcel History in the field



Inspectors can quickly access a more comprehensive overview of all related inspection information, including vital permit/parcel information and code violations.

Real Time Field/Office Data

A real-time field solution can provide a department and community with instantly accessible data. Sign-offs, inspection details and other valuable field data is instantly available to a community via web and IVR (Telephony Automation). Last minute cancellations, reschedules and reassignments are also updated on daily schedules while inspectors are in the field, in turn saving valuable operational time.

MobileGov field solutions are compatible with Handheld/mobile devices, laptops, and Tablet PCs running on the Windows XP/Windows Mobile operating systems.

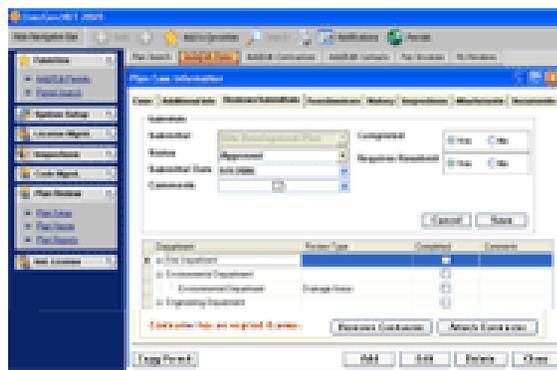
- **IVR (Telephony Automation)**

Save Time and Improve Customer Service

EnerGov IVR (interactive voice response) is an automated telephony based system that provides a community with 24-hour access to Permitting and Inspection services.

Empowered Community and Department

EnerGov IVR allows contractors, inspectors, and other individuals within a community, convenient (24 hours a day, 7 days a week) access of inspection scheduling and other building department services over a touch-tone phone. Inspection requests are immediately posted within the EnerGov software for easy access and scheduling. Real-Time, automated Inspection results and Permit application status retrieval is also a convenience provided using the phone service.



Sample screenshot of EnerGov IVR

Advantages of EnerGov IVR Integration include:

- o Department hours are extended to 24/7 available services
- o Increase the efficiency of the entire inspection workflow
- o Automated inspection scheduling
- o Drastically improve call capacity all at a lower cost
- o Toll-free number
- o Unlimited incoming phone lines
- o Reschedule and cancel inspections - Real-time
- o Real-time results/system data
- o Call system tailored to jurisdictional needs
- o Automated inspection result call-backs (contractor, applicant)
- o Integrated GIS and inspection route planning
- o Automated permit status checking
- o Process inspections more quickly and easily
- o All records easily accessed within software
- o Improve community relations through 24-hour automation
- o Staff can utilize the services from the field

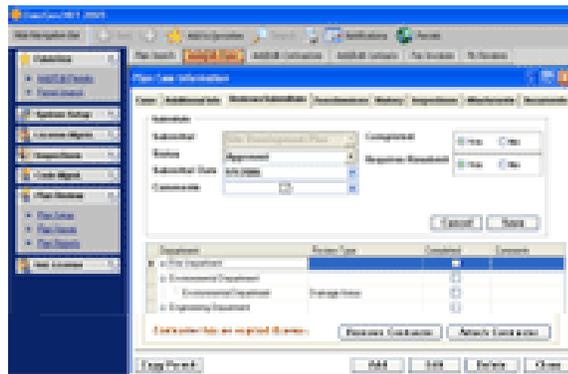
- **Citizen Access Web Portals**

Empowered Community and Department

EnerGov Citizen Access is an integrated web portal that provides a community with 24-hour access to Permitting, Inspection, Code Enforcement and other community development services.

24 Hour Departmental Service Access

EnerGov Citizen Access allows contractors, applicants, and citizens with convenient (24 hours a day, 7 days a week) access of inspection scheduling, permit applications, status updates and code enforcement services – all over an easy to use website. Online Inspection requests are immediately posted within the EnerGov software for easy access and scheduling. Real-Time, automated Inspection results and Permit application status retrieval is also a convenience provided using the online web portal.



Sample screenshot of EnerGov Citizen Access

Advantages of EnerGov Citizen Access

- o Department hours are extended to 24/7 available services
- o Increase the efficiency of the entire inspection workflow
- o Automated inspection scheduling
- o Eliminate time consuming "status check" phone calls
- o Reschedule and cancel inspections - Real-time
- o Apply and pay for permits online
- o Real-time results/system data
- o Web Portals tailored to jurisdictional needs
- o Instant inspection result retrieval (contractor, applicant)
- o Integrated GIS and inspection route planning for inspectors
- o Automated permit status checking
- o Process inspections more quickly and easily
- o All records easily accessed within software
- o Improve community relations through 24-hour automation
- o Council members & staff can retrieve info anywhere, anytime

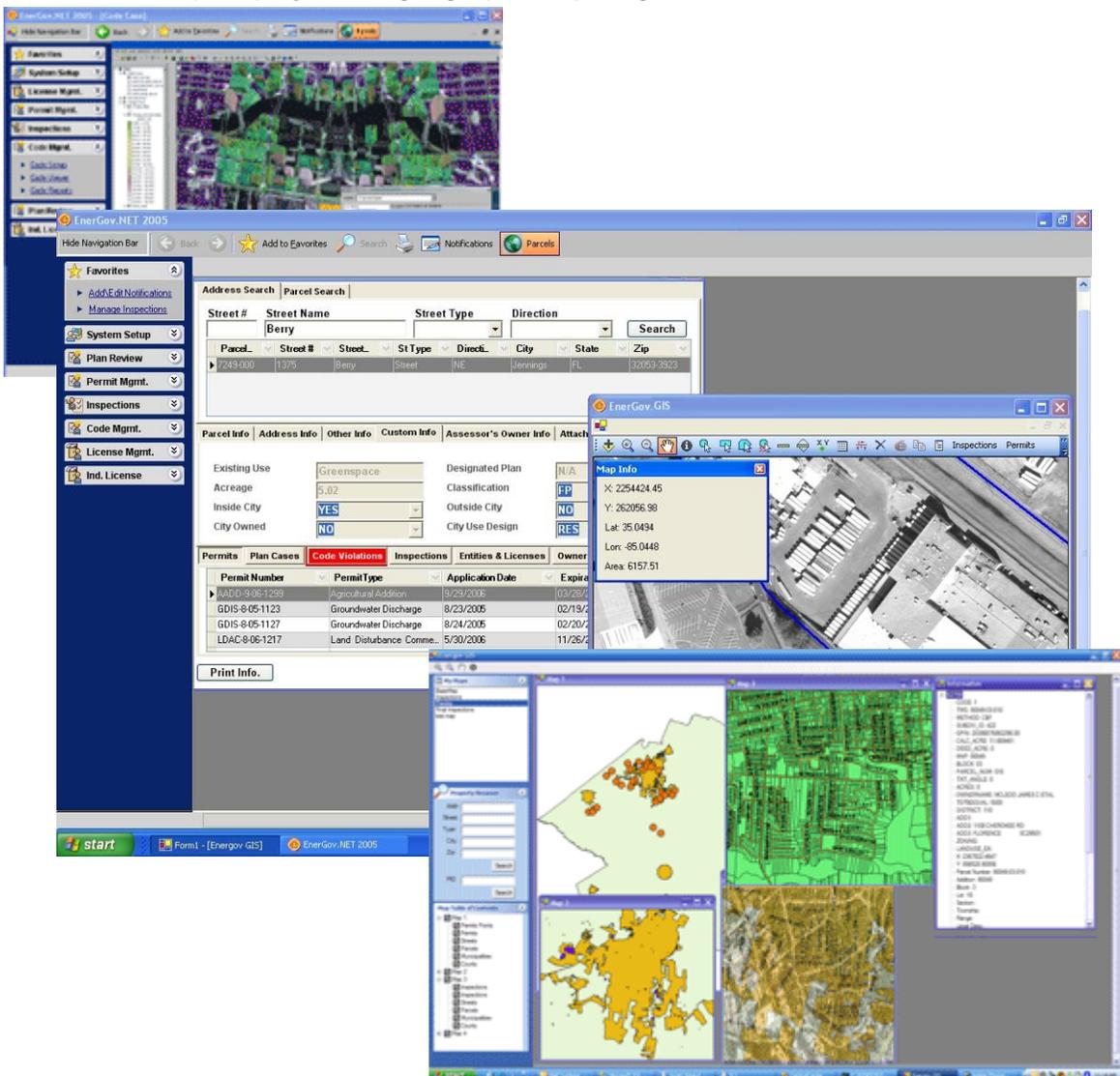
- **GIS Integration and Associated Vehicle Route Planning**

EnerGov .NET Internal GIS

EnerGov .NET built-in GIS allows all land management related cases (permits, plans, code cases etc.) linked to parcels to be interfaced with a jurisdiction's GIS data, allowing departments to engage in powerful geographical capabilities.

- o Geographical visual of issued permits/plans/codes
- o Graphical interface for planning/reviews
- o Geographical route planning
- o Printing maps/graphical reports
- o Multiple address/Parcel database
- o Geographical inspection scheduling
- o IVR and citizen access (web) integration

EnerGov GIS automates the often complex tasks of geographic data management, interactive map displays, and geographic report generation.



EnerGov .NET offers built-in GIS



Plus Series by SunGard Pentamation®

SUNGARD Pentamation is an application software and information processing services company whose sole focus is to provide administrative information systems, performance analysis and reporting software solutions to the K-12 and Local Government markets throughout the United States.

Overview

SunGard Pentamation has been providing local government fund-accounting software, human resources software, public services software and community development software to cities, municipalities, counties and authorities for over 30 years. Thousands of government administrators, elected officials and their constituency trust SunGard Pentamation's public sector software, services and people every single day.

Public Sector Software

The SunGard Pentamation *PLUS SERIES* provides a secure, reliable, and true fund-accounting based financial and human resources, permitting, code enforcement, licensing and utility billing local government software product suite for municipalities, counties, and authorities.

It is designed to provide staff, directors or elected officials with relevant and potent information in order to have high impact when managing community resources.

Technology for Today . . . and Tomorrow

- The Plus Series products are engineered to work today and for years to come:
- Based on leading yet reliable technologies
- Utilize a centralized, organization-wide database
- Provide users with an extremely intuitive, easy-to-use interface
- Developed by a innovative yet experienced development team
- Commitment of continual enhancements and upgrade

Commitment to Customer Success

At SunGard Pentamation, we are committed to ensure that all our products work reliably, are fully implemented, are backed by knowledgeable and available customer support and we equip our customers with sufficient training so they can get the maximum benefit out of their purchase of the Plus Series.

Plus Series by SunGard Pentamation is organized into two (2) main product offerings, based on customer department and/or function:

- Finance and Human Resources
- Community and Public Services

While the City of West Sacramento may be interested in migrating away from their existing SunGard Bi-Tech financial database system, it is outside of the scope of this study to evaluate any alternative solutions. This report can only focus on how alternative enterprise database solutions might be able to interface with Bi-Tech. Therefore, this section will only concentrate on the Community and Public Services product line by SunGard Pentamation.

Community and Public Services Product Line

eCommunityPLUS+

eCommunityPLUS is a windows-based public services and community development information management system for municipalities, counties, and authorities that are looking for:

- Windows-based technology
- An easy-to-use design and Windows interface
- Leverage of a single, community-wide database
- Web-access to view and manage information
- Intelligent workflow procedures
- Integration with other popular desktop applications
- Internet services for their constituency
- Ease of implementation and deployment

eCommunityPLUS allows government staff, contractors, businesses and residents the ability to easily access and manage both summary and detailed utility, public services, permitting, licensing information.

- **Utility Management**

This system offers an advanced utility customer information, billing and collection system. Utility departments can easily manage all day-to-day processes and field activities while providing quick efficient customer service. Customers can also access their account information or make payments over the Internet through eGovernment Services (detailed below). Additionally, all financial transactions that occur within the utility system are posted to the general ledger.

Applications include:

- Customer Information
- Billing
- Payments
- Work Orders

- **Community Development**

The Community Development application is an automated jurisdiction-wide system which helps local governments manage their development planning, license contractors, issue permits, process inspections and enforce jurisdictional codes. It offers comprehensive features to easily record, process and track all community development activities and information, including any multi-media items such as construction plans, photographs or correspondence. In addition, the web-based eGovernment Services (detailed below) allows agencies to provide extensive e-government services to contractors, business owners and residents to view account information, review plans, schedule inspections, make payments and much more via the Internet...anytime, anywhere.

Applications include:

- Centralized Property File
- Development and Zoning
- Permits
- Contractor Licensing

- Code Enforcement
- Handheld Interfaces
- Integrated Voice Response
- GIS Interface

- **Licensing**

Provides a comprehensive licensing system to efficiently issue or renew all types of community licenses. Whether agencies need to renew a traditional business license or produce a seasonal fishing license, the system allows users to easily track the business owner or customer account information, establish requirements and fees, or assess penalties. The final license can be produced in many formats such as pre-printed or laser generated forms, decals, as well as mail merge letters. In addition, with our eGovernment Services features, customers or owners can view their account information and make payments over the Internet. Naturally, a full license history is automatically maintained by the system and reports can be prepared for local officials.

Applications include:

- Centralized Database
- Business Licenses
- Vehicle Licenses
- Pet Licenses
- Miscellaneous Licenses
- GIS Interface

- **Miscellaneous Billing**

Miscellaneous Billing provides local governments with flexible billing and receivables features for miscellaneous services, false alarms, or special property assessments. Easily enter and track customer information, a detailed record of the service or assessment and quickly generate an invoice. All of the information is maintained in a central customer or property based file, and naturally, any financial transactions are integrated with the general ledger.

Applications include:

- Miscellaneous Billing
- Alarm Billing
- Special Assessments

- **Payments and Receipting**

Provides both staff and constituents with a single, convenient and centralized payment processing system for all government provided services. It is tightly integrated with all the other SunGard Pentamation community service applications and ledgers to ensure an accurate and auditable record of all revenue receipts.

Applications include:

- Centralized Payment Processing
- Cash Counter
- Back Office Payments
- e-Payments

- **Work Orders**

This system assists organizations in efficiently processing requests for virtually any type of service including repairs or renovations to vehicles, facilities, technology, and much more. It is fully integrated with SunGard Pentamotion's purchasing, fixed assets and warehouse inventory systems. This integration allows minimal duplicate entry and increases staff efficiency in processing and tracking maintenance on all assets and facilities within an organization.

Applications include:

- Recording Requests
- Routing and Tracking
- Status and Responses
- History and Reporting

- **Service Requests**

This Constituent Relationship Management (CRM) system enhances community relations by providing all departments with a single, consistent method to efficiently record, route, track and respond to virtually any request for service or complaint from their community. Requests can be from residents, business owners, contractors, visitors to a community, or even from an agency's own staff for internal services. In addition, interested parties can submit, track and receive responses for services via a convenient browser interface on a client's website or a touch-tone phone...at anytime, from anywhere. The Pentamotion service requests system is well designed to easily manage any requests, facilitate responses, and provide a management team or elected officials with a clear, real-time status of all community service requests.

Applications include:

- Requests
- Routing and Tracking
- Status and Response
- Web Access
- 311 Access
- History and Reporting

- **Parks and Recreation**

This system provides an organization with an easy way to track, schedule and enroll participants in recreational activities. Agencies can generate schedules for these activities and check that all applicants enrolling meet any requirements they set. Additional features provide local governments with an easy way to assign staff, facilities and inventory.

Applications Include:

- Schedule Activities
- Register Applicants
- Manage Inventory

- **eGovernment Services**

Provides contractors, business owners and citizens with real-time e-government services over the Internet, anytime, anywhere. While taking on the 'look and feel' of a client's website, it connects their constituency to Pentamation applications and intuitively guides them to the services they require, such as account information, permit and business applications, plan reviews, inspection scheduling and results, request for services, on-line payments and much more. Offering convenient 24 hours a day, 7 days a week access will enhance the productivity of an agency's staff and the service levels for those who live and work in a community.

Applications include:

- e-Utility Billing
- e-Permitting
- e-Licensing
- e-Service Requests
- e-Code Enforcement

- **Integrated Reporting**

The Plus Series provides government administrators and staff with multiple query and reporting options to easily generate a full range of simple to complex reports and quickly distribute them to any number of people inside or outside the organization. With hundreds of standard reports, required state and federal regulatory reports, as well as a truly easy-to-use and integrated report writer, the Plus Series can meet virtually all reporting and query requirements.

Applications include:

- Standard Reports
- Regulatory Reports
- Report Writer

- **Professional Services**

SunGard Pentamation considers the implementation and support services they provide to be critical to the success of all the Plus Series local government software implementations. They take their responsibilities in this area very seriously and provide the following services:

- *Implementation Services*
Pentamation's experienced staff provides comprehensive implementation planning, data conversions, on-site training and consulting services.
- *Systems Engineering*
Pentamation can provide all hardware (configuration, procurement, installation,) operating systems, database software, system training and technical support.
- *Customer Support*
After initial installation, clients are only a phone call or a mouse click away from professional, skilled and courteous SunGard Pentamation support professionals.



iCity software by Star Municipal Technologies

Introduction

Vadim Software develops innovative, integrated financial, municipal, asset management and utility management software for Municipalities, Local Governments, and Utility Companies. Founded in 1975, Vadim has been dedicated to this market for over 30 years.

Vadim continually develops applications to meet the ever-evolving needs of their clients, providing technologically advanced and process oriented solutions.

All municipal and financial products use the latest proven technologies and are designed to be expandable as a community grows. In this way, Vadim protects the long-term investment of its customers.

Vadim is dedicated to providing customer-focused service and support to its client base throughout North America.

iCity software

iCity is Vadim Software's modular suite of fully integrated core fund accounting and municipal applications. iCity is scalable to provide an entire package necessary for the operation of local government organizations. Get started with Accounts Payable, Bank Reconciliation and General Ledger for immediate results with long-term planning capabilities.

Vadim offers completely integrated solutions for local governments, which are organized as follows:

- **Financial Applications**

Includes:

- General Ledger/Budgeting
- Bank Reconciliation
- Accounts Payable
- Purchasing/Encumbrance
- Inventory
- Accounts Receivable
- Payroll
- Human Resources.

While the City of West Sacramento may be interested in migrating away from their existing SunGard Bi-Tech financial database system, it is outside of the scope of this study to evaluate any alternative solutions. This report can only focus on how alternative enterprise database solutions might be able to interface with Bi-Tech. Therefore, this section will only concentrate on the product lines detailed below by Vadim Software.

- **Municipal Applications**

Includes:

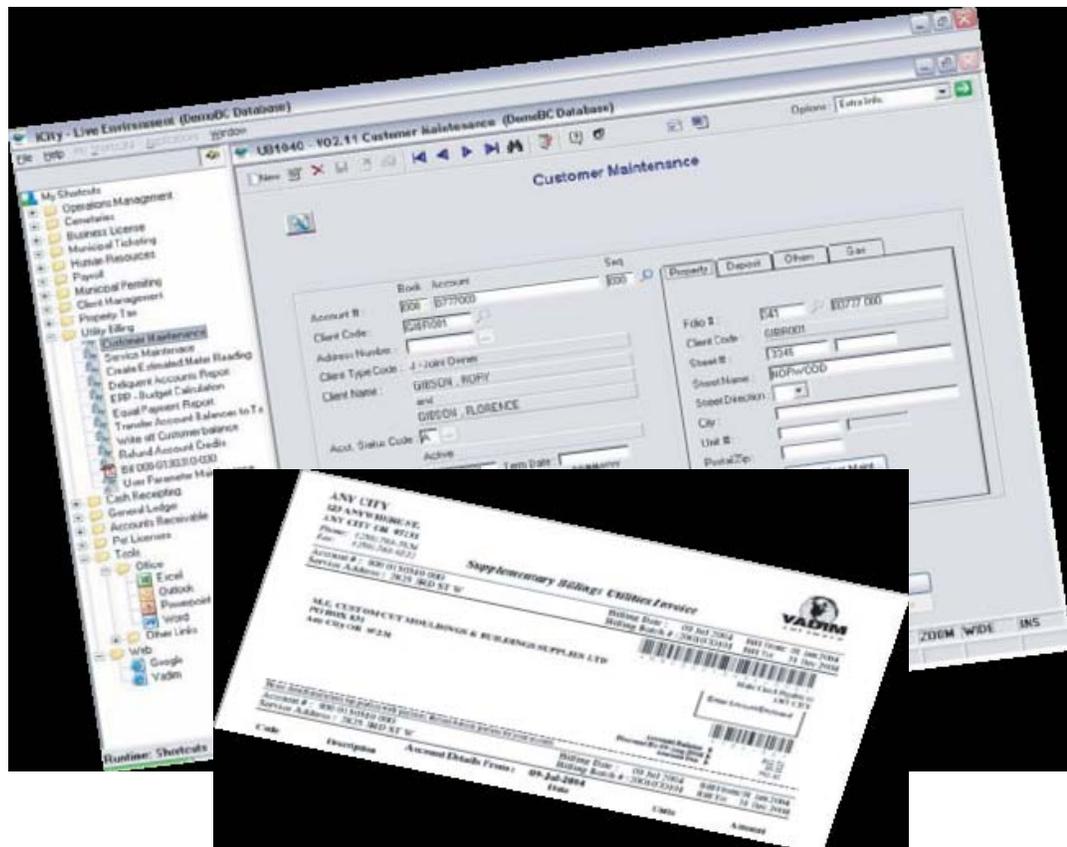
- Property Taxation
(Integrated with General Ledger, Utility Billing, Cash Receipting and Municipal Permits)

Vadim's Property Taxation Application produces property taxation billings, reports and account control in accordance with state and provincial requirements. This application handles all frontage taxes, improvement taxes, EDI or automated update of assessment information, interim billings, school tax reporting, tax certificates, application of all penalties, interest and other charges including mortgage companies, prepayments and property tax sale calculations.

- o Utility Billing
(Integrated with General Ledger, Property Taxation, and Cash Receipting)



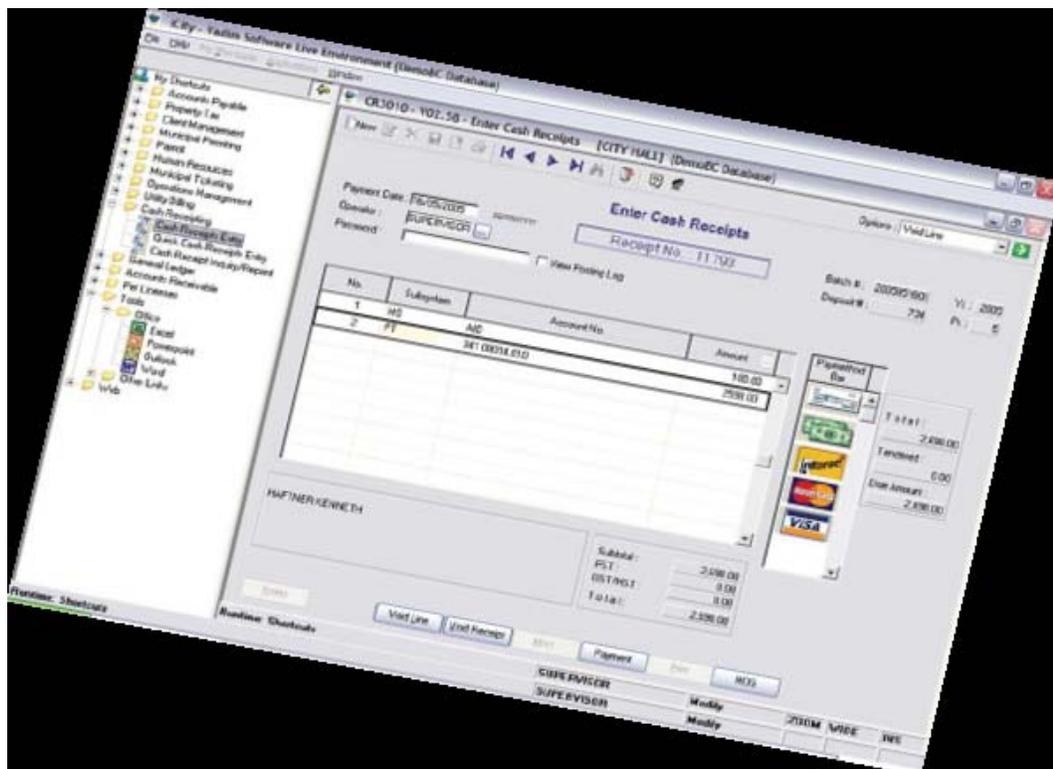
Vadim's Utility Billing Application provides a flexible billing control system for water, sewer, garbage, electricity and natural gas. It also allows for varied billing cycles; flat rate, metered or transaction input with automated prorating for new and/or terminated accounts. Integrated with most electronic meter reading systems, it handles both metric and imperial units of measure. The ability to handle authorized pre-payment plans, interest, penalty calculations, and property owner or occupant billing makes this a very powerful system.



iCity Utility Billing screenshot

- o Cash Receipting
(Integrated with General Ledger and all other Municipal Billing Systems)

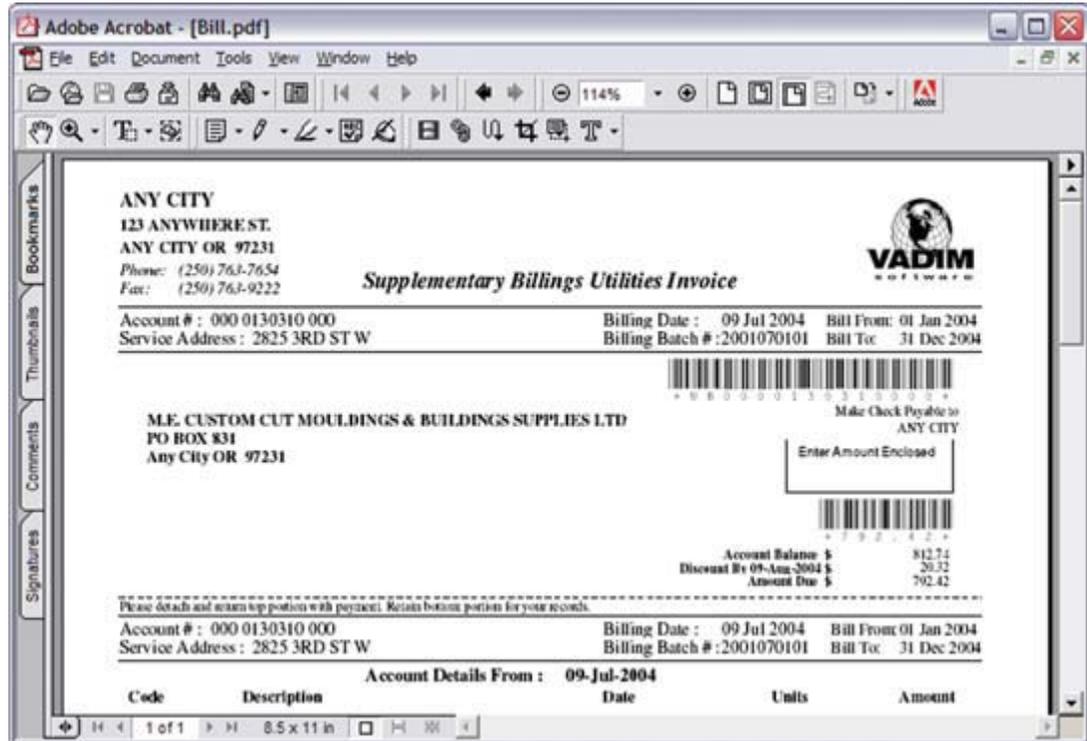
Vadim's Cash Receipting Application provides an online integrated single source for the receipt of all money by the organization. This application is integrated with all billing systems from Property Taxation, Utility Billing, Accounts Receivable, Business License, and Municipal Tickets as well as other billing applications that are not part of the Vadim Solution. This Application handles and distributes receipts of all miscellaneous cash including grants, and offers full security by user, online verification and find features for accounts owing, including calculation of interest, discounts, penalties, and residential grants.



iCity Cash Receipting screenshot

- o iCity Business Licenses
(Integrated with General Ledger, Property Database and Cash Receipting)

Vadim's Business Licenses Application is designed to issue, report and track businesses operating within the municipality, including non-resident businesses. This application allows for multiple license categories per business license with full history and license status while retaining full customer invoice, payment and distribution history. Easy search capabilities are offered to locate a specific business or customer.

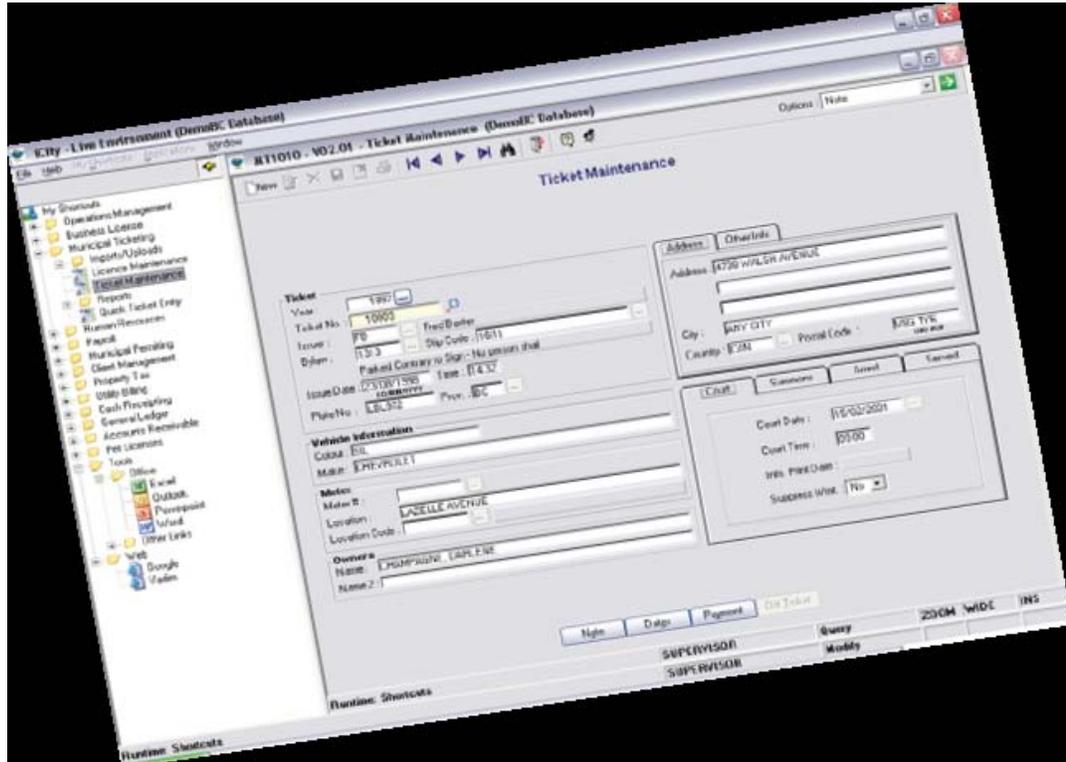


iCity Business Licenses screenshot

- o Municipal Tickets
(Integrated with General Ledger, Property Database and Cash Receipting)

Vadim's Municipal Tickets Application controls the issuance of parking tickets, collections, reminders, summons and warrants while retaining previous violation history. This application has a direct interface to automated, hand-held devices and license/address information, as well as various ticket issuance systems. Users are also able to download vehicle information from motor vehicle or law enforcement files.

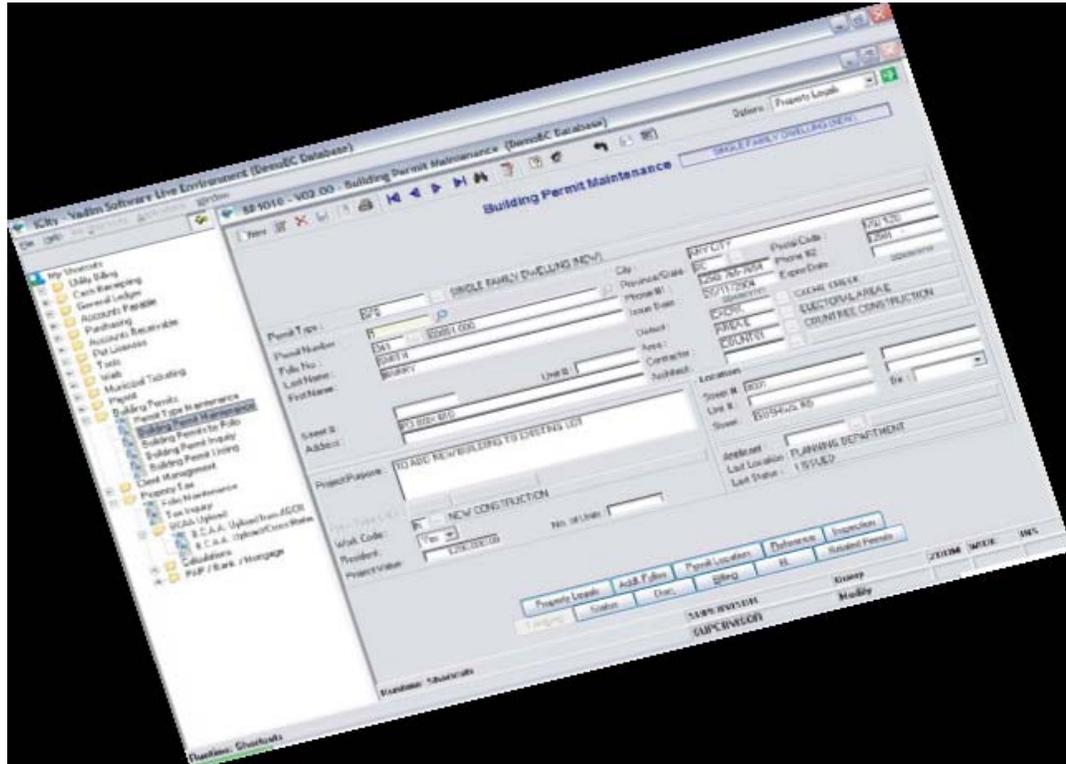




iCity Municipal Ticketing screenshot

- o iCity Building Permits
(Integrated with General Ledger, Property Database, Property Taxation and Cash Receipting)

Vadim's Municipal Permits Application is designed to issue, report, inspect and maintain an issued permit database for properties within a municipality. "User Friendly" search features are offered for permit type, property or contractor along with user defined inspection criteria. This application retains full permit history and offers comprehensive reporting; including statistical reports that meet state and provincial requirements.



iCity Building Permits

- Voters List
(Integrated with Provincial Voter Listings)

Vadim's Voters List Application controls the registration of voters and provides polling information related to Municipal elections. Online inquiry is offered for voter information, as well as providing statistical reporting.

- Pet Licenses
(Integrated with General Ledger, Property Database and Cash Receipting)

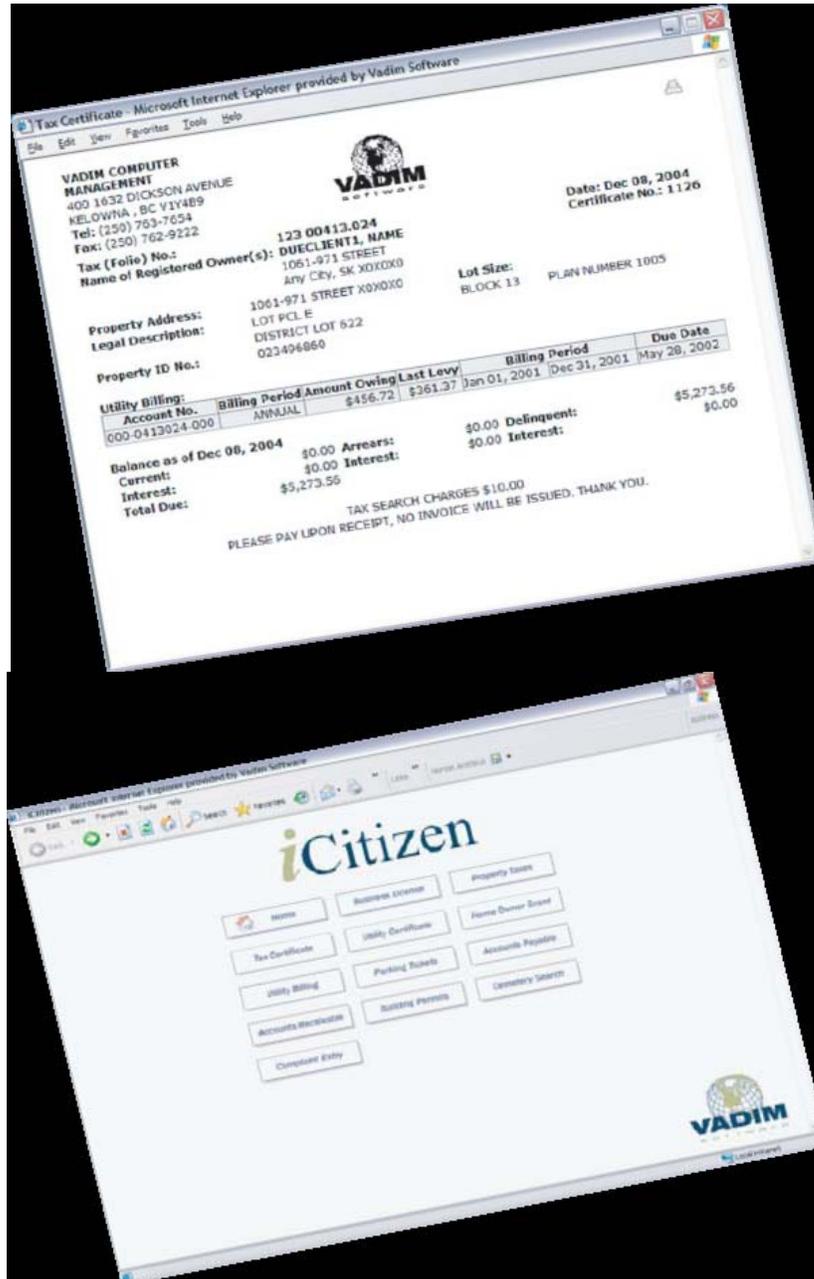
Vadim's Pet Licenses Application controls the issuance of licenses and maintains an animal information database with full history of licensed pets in the community. Variable information is allowed on animal and owner along with free style notepad. The ability to attach digital images of licensed pets to the database is also available with this application.

- **Other Applications**

- iCitizen
(Integrated with all Vadim Applications)

Vadim's iCitizen (eGovernment application) provides citizens with direct access to many of the services offered on a municipality's web site. This application enables Citizens to book services, view their account information and update data and even make payments. All transactions and payments are handled in a secure

manner, protecting the individual's specific and private information, while providing direct real-time integration to an organization's software. This web-enabled application provides 24 hours, 7 days a week support and services to an agency's customers.



iCitizen gives access to the general public

- o Document Imaging and Workflow
(Integrated with Accounts Payable and Municipal Permits)

Vadim offers complete "Imaging" abilities for the Enterprise or integrated system and as a run-time only feature integrated with Vadim Software. Documents can be attached to any record within our software or integrate a work flow/approval process. In addition to images, this application provides the ability to manage a wide variety of documents from word processing, spreadsheets, GIS, audio and virtually any other type of file. Vadim has made this process simple and user-friendly with our Scan, Attach and View keys.

- o GIS Viewer
(Integrated with Property Taxation, Utility Billing and Property Database)

Vadim's GIS Integration provides access to interactive maps, designs and relevant data to anyone across a LAN or WAN. This Integration allows for accessing and integrating all major GIS applications, which enables municipalities to use their current data at a relatively low cost. Users are able to select multiple objects by list, radius, polygon or intersection increasing the speed of data gathering.

- o VadimVIEW
(Integrated with all Vadim Applications)

VadimView combines IntelliVIEW with Vadim's comprehensive reporting, providing the most flexible business analysis tool available. VadimVIEW gives end-users the flexibility to output a complete list, sort, print charts and export data to other formats such as Excel and PDF as well as create never before possible graphic reports in their Vadim applications. With this powerful application, users will be able to generate on-the-fly reports from Vadim Applications and thereby enable employees to make critical business decisions in real-time.

Vadim continues to be committed to a complete solution that is based on current technology. They have successfully transitioned their clients through several generations of technology. Our software solutions use Microsoft's current Windows® operating system, and Microsoft's SQL database management system.



PTWin32v2 by Black Bear Systems

PTWin32v2 is a suite of computer software programs designed to work with Microsoft Windows software. Its purpose is to track and report on, among other things, a variety of planning, building, zoning, licensing, and code enforcement records kept by local governments.

PTWin32v2 is comprised of three modules:

1. Permits
2. Licenses
3. Code Enforcement

Agencies can license combinations of modules or purchase all three with our PTWin32v2 MAX option. For cost information see the end of this section.

Each feature listed below contains a code that states which module(s) include the feature. For example, a code of "(PCLM)" means the feature is part of (P)ermits, (C)ode Enforcement, (L)icenses, and PTWin32v2 (M)AX.



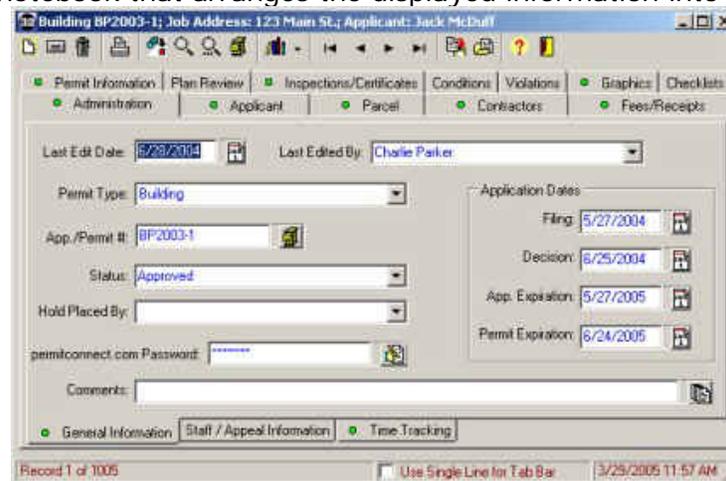
Permits (PM)

Store and Print any type of permits an agency wants

PTWin32v2 comes with over 20 predefined permit types for agencies to use, or tailor to their needs. Users can also create any new permit types they wish by using the software's built-in modification abilities. Permit data can also be displayed in three (3) different views:

- Plan Review
- Front Desk
- Management

Below is an example of where users enter and consult all information regarding permits. All types of permits, i.e. building, mechanical, plumbing, etc. are accessed from this permit window. Like most windows in PTWin32v2, the permit window has a button toolbar of its own and a tabbed notebook that arranges the displayed information into useful categories.



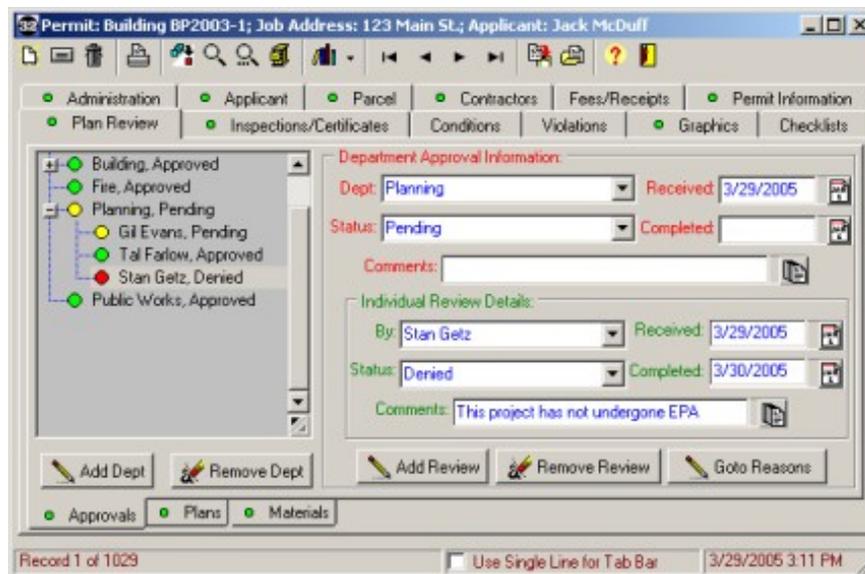
PTWin32v2 Permit Window



Plan Review (PM)

Handle the Plan Review process with ease

With PTWin32v2, the plan review process keeps everyone up-to-date. Agencies can track multiple departments and multiple reviewers within those departments. This is seen as a graphic tree that gives users the status at a glance. Users can track the location of important documents that pass between reviewers, and keep a comprehensive list of project materials along with their values. The window below displays all agency citation information on the pages of a tabbed notebook. Organizations can track complete information about a violation including fines, conditions and inspections. Users can attach a citation to a parcel or list multiple violations in a single citation. In addition, users can enter the complete text of a municipal code into PTWin32v2 so it is always accessible for reference.



PTWin32v2 Plan Review of the Permit Window

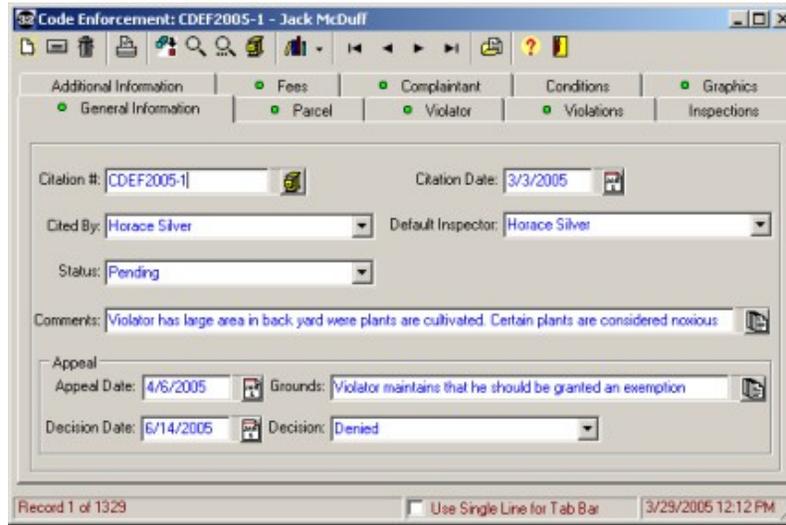


Code Enforcement (CM)

Manage code enforcement & citation information

PTWin32v2 stores and prints all kinds of citation and notification information, including parties involved, the location, fees or fines charged, inspections, conditions, and appeal data. Plus, users can store the full text of the violated code.

Below is a screen shot of an agency's citation information. Organizations can track complete information about the violation including fines, conditions and inspections. Users can attach a citation to a parcel or list multiple violations in a single citation. In addition, users can enter the complete text of a municipal code into PTWin32v2 so it is always accessible for reference.

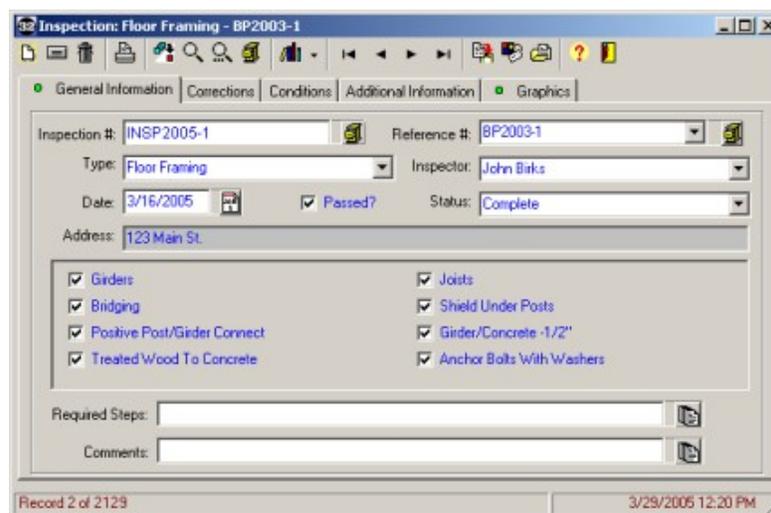


PTWin32v2 Code Enforcement Window



Inspections (PCM)
Manage inspection procedures

PTWin32v2 provides 12 predefined inspection types with checklists for agencies to use or modify, or create their own. Users can track any number of conditions or corrections, and attach graphics to records. Inspections can also be exported and imported to and from notebook computers that are taken into the field. The PTWin32v2 inspection window provides a simple, one-stop place for inspectors to work with inspection records. This window has the same tabbed notebook and window toolbar seen on other PTWin32v2 windows. By changing what is in the "Inspection Type" field, users can change the list of check boxes on the Inspection Record page of the tabbed notebook. Agencies have full control over the inspection types and the checklist items that go with them



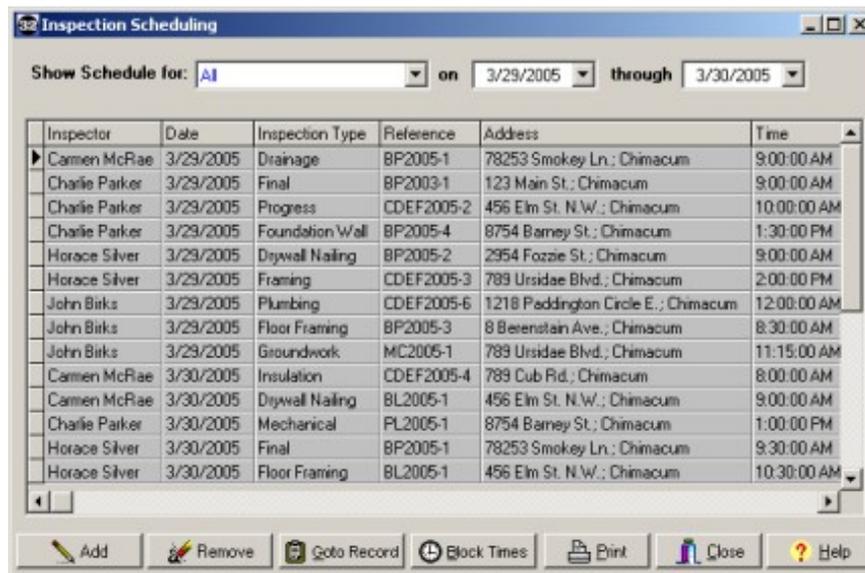
PTWin32v2 Inspection Window

If the inspection record has previously been entered into the Inspection Schedule, users can borrow the information from the Schedule to fill in the Inspection record. Users can also import and export inspection information across other computers that may be taken into the field by inspectors for entry of information on site.



Inspection Scheduling (PCM)
Keep on schedule

PTWin32v2 comes with an integrated Inspection Scheduler that can manage multiple inspectors. Agencies can block out specific times and dates, as well as print schedules for one or all inspectors. The PTWin32v2 inspection window seen below provides a simple, one-stop place for inspectors to work with inspection records. This window has the same tabbed notebook and window toolbar seen on other PTWin32v2 windows. By changing what is in the Inspection Type field, users can change the list of check boxes on the Inspection Record page of the tabbed notebook. Agencies have full control over the inspection types and the checklist items that go



Inspector	Date	Inspection Type	Reference	Address	Time
Carmen McRae	3/29/2005	Drainage	BP2005-1	78253 Smokey Ln.; Chimacum	9:00:00 AM
Charlie Parker	3/29/2005	Final	BP2003-1	123 Main St.; Chimacum	9:00:00 AM
Charlie Parker	3/29/2005	Progress	CDEF2005-2	456 Elm St. N.W.; Chimacum	10:00:00 AM
Charlie Parker	3/29/2005	Foundation Wall	BP2005-4	8754 Barney St.; Chimacum	1:30:00 PM
Horace Silver	3/29/2005	Drywall Nailing	BP2005-2	2954 Fozzie St.; Chimacum	9:00:00 AM
Horace Silver	3/29/2005	Framing	CDEF2005-3	789 Ursidae Blvd.; Chimacum	2:00:00 PM
John Birks	3/29/2005	Plumbing	CDEF2005-6	1218 Paddington Circle E.; Chimacum	12:00:00 AM
John Birks	3/29/2005	Floor Framing	BP2005-3	8 Beerenstein Ave.; Chimacum	8:30:00 AM
John Birks	3/29/2005	Groundwork	MC2005-1	789 Ursidae Blvd.; Chimacum	11:15:00 AM
Carmen McRae	3/30/2005	Insulation	CDEF2005-4	789 Cub Rd.; Chimacum	8:00:00 AM
Carmen McRae	3/30/2005	Drywall Nailing	BL2005-1	456 Elm St. N.W.; Chimacum	9:00:00 AM
Charlie Parker	3/30/2005	Mechanical	PL2005-1	8754 Barney St.; Chimacum	1:00:00 PM
Horace Silver	3/30/2005	Final	BP2005-1	78253 Smokey Ln.; Chimacum	9:30:00 AM
Horace Silver	3/30/2005	Floor Framing	BL2005-1	456 Elm St. N.W.; Chimacum	10:30:00 AM

PTWin32v2 Inspection Scheduling Window

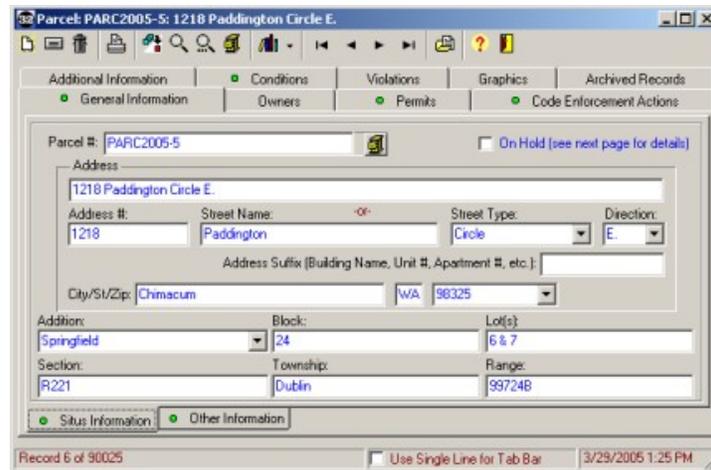


Parcels (PCM)
Store comprehensive parcel information

With PTWin32v2, agencies can store graphics as well as text with their parcel information. Users can track all Permits, Conditions, Violations, or Code Enforcement actions related to a parcel as well as complete legal description and historic ownership information. And PTWin32v2's parsed addresses and coordinate fields facilitate importing data from another source, or connecting PTWin32v2 to an existing GIS system.

As seen below the PTWin32v2 Parcel window contains a tabbed notebook, complete information on parcels including descriptions, owners, permits, conditions, code enforcement history and graphics. X and Y coordinate fields, along with full street address

parsing, allows agencies to link permit information to their existing GIS system for easy cross reference.



PTWin32v2 Parcel Window

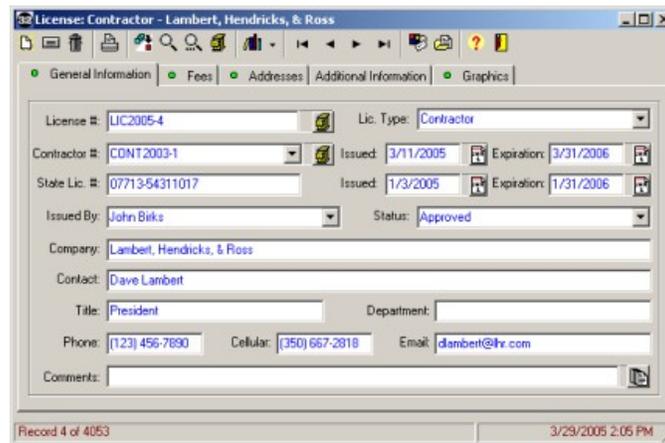


Licenses (LM)

Issue and track any kind of license

Agencies can track license and fee information at state and local levels and there is no limit on the number of license types organizations may create. Users can store addresses and phone numbers for main and local offices and easily jump to any related Contractor information that might apply.

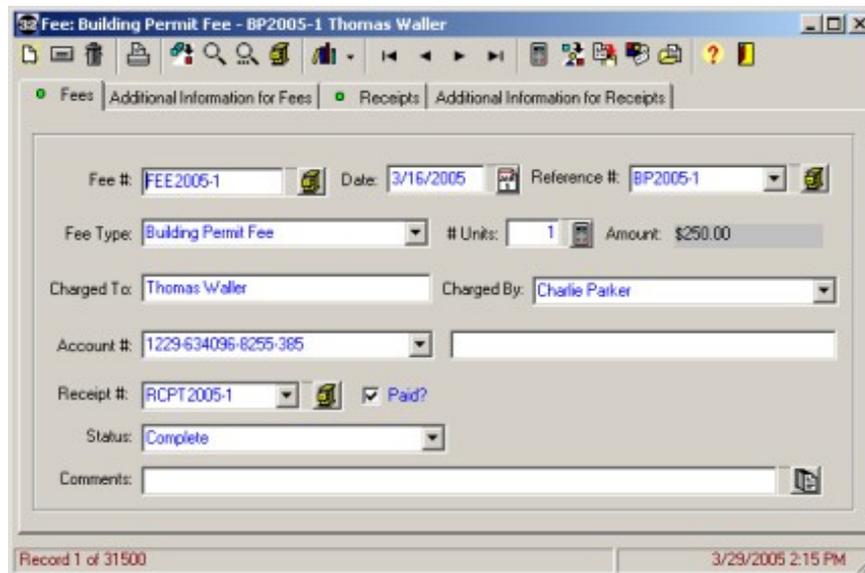
The PTWin32v2 License window contains a tabbed notebook that allows agencies to issue and track any number of license types along with their fees. Users can check state and local license numbers and their expiration dates at a glance and add unlimited comments. In addition, agencies can define as many types of licenses as they like; for example, Business License, Camping License, Dog License, etc. Users can track Fees and any Graphics they might want to include like digital photographs or scanned multi-page documents.



PTWin32v2 Licenses Window

 **Fees & Receipts (PCLM)**
Track fees & receipts

Agencies can store particular fee and construction or material valuation information for fixed, graduated, or hourly fee and receipt types. Then track and report on it quickly and easily. Fees can be charged as a group or can be the result of complex calculations that are charged at the click of a mouse. Receipts can reference multiple fees and multiple accounts.



PTWin32v2 Fees & Receipts Window

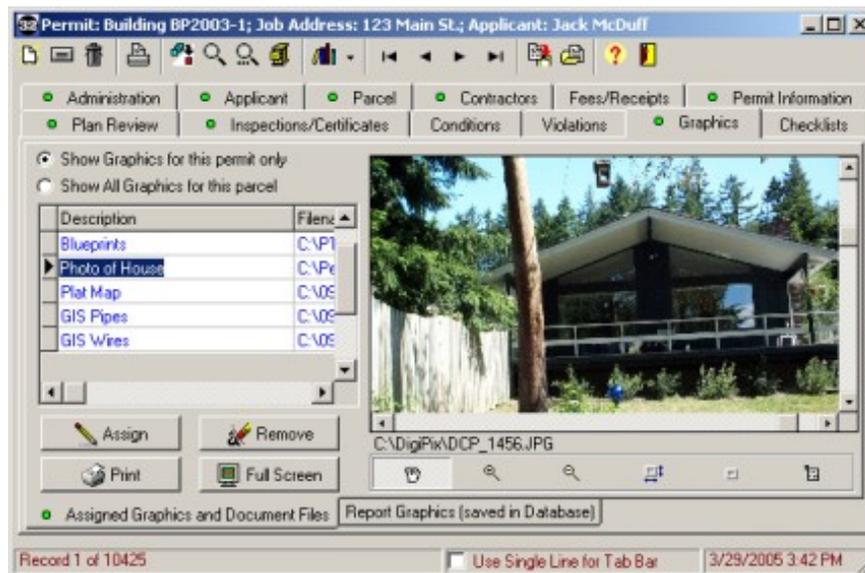
The PTWin32v2 Fees & Receipts window contains a tabbed notebook where agencies work with all their fees, fines and receipts they charge and collect throughout the PTWin32v2 system. Agencies can define as many fees as they like based on fixed, scaled, or hourly charges, and gather them together into groups that charge multiple fees at the press of a single button.



Graphics (PCLM)

Attach photos, scanned documents, drawings, maps, etc.

The windows for Permits, Code Enforcement, Licenses, Parcels, Inspections, and Contractors allow users to attach or store graphics to PTWin32v2 records. Agencies can operate their TWAIN compatible scanner or digital camera from within PTWin32v2 and scan graphics as well as multi-page documents. Users can also zoom, center, magnify, pan, show full screen, or apply image enhancement to PTWin32v2 graphics records. These images can be anything agencies want them to be, such as digital photos, floor plans, maps, drawings, GIS segments, etc. Users can scan graphics and multi-page documents from within PTWin32v2 or load them from external disks. Controls on the Graphics tab that allow zoom, center, magnify, pan, show full screen, apply image enhancement, navigate, update and purge multi-page document files. Graphics can be stored on local hard drives in their native file formats, or as bitmaps in the PTWin32 Graphics centralized database.



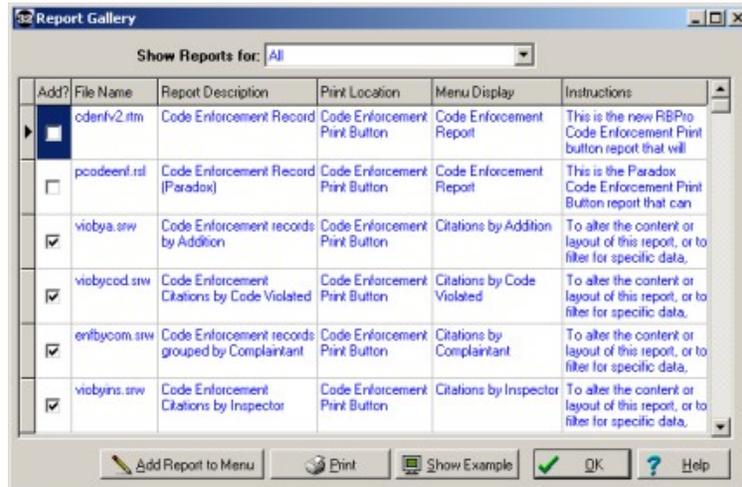
PTWin32v2 Graphics Window



Report Printing (PCLM)

Print out a wide array of reports

Agencies can print any permit, license, etc in PTWin32v2 and select from a list of management reports that cover everything, from the monthly permit tally to the final inspection log. Agencies can also substitute their own report for a PTWin32v2 report, and can maintain menus of reports that are attached to print buttons throughout the system. Plus, PTWin32v2 comes with an upgradeable Report Gallery containing over 130 report definitions for users to use or change to meet an agency's needs.



PTWin32v2 Report Gallery Window

PTWin32v2 comes with over 130 pre-defined reports for agencies to use or tailor to their specific needs. Users can print every type of permit, license, citation, etc., and select from a suite of Activity reports that detail department-wide statistics.

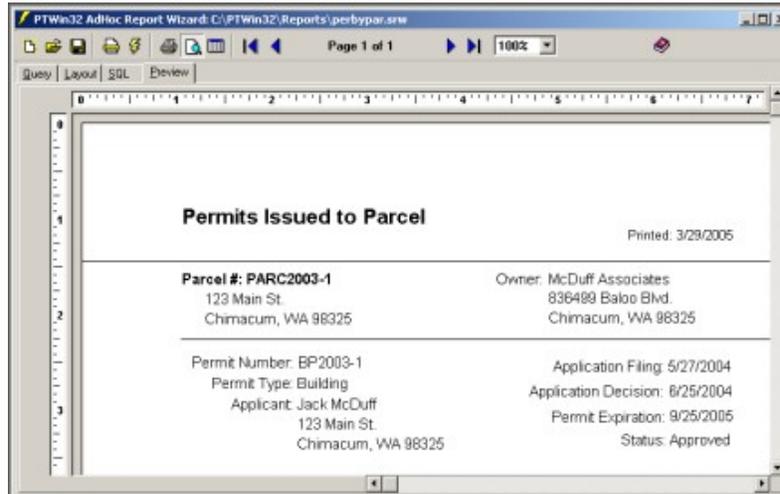
The Report Gallery gives agencies everything they need to know about a report including the ability to place it on a PTWin32v2 menu. Plus, upgrades to the Report Gallery content containing new reports, charts, and graphs agencies may not have yet posted to Black Bear's web site for free download.



Report Writing (PCLM)

Create new reports or modify existing ones

PTWin32v2 comes with two different report writer programs. Agencies can use either of these programs or any 3rd party report writers that can open SQL tables. Organizations can modify most of the reports that come with PTWin32v2 to suit their needs. And one of the report writers doubles as a sophisticated query engine that allows agencies to ask complex questions of an agency's data. The screenshot below represents the Ad-Hoc Report Writer and Query Engine. This report writing program is one of two report writers bundled with PTWin32v2. Over 130 report formats are included with PTWin32v2, and agencies can change most of them with the included report writers. Any new reports agencies want to make can be created using Paradox for Windows, Crystal Reports, or any other third-party SQL program of choice.

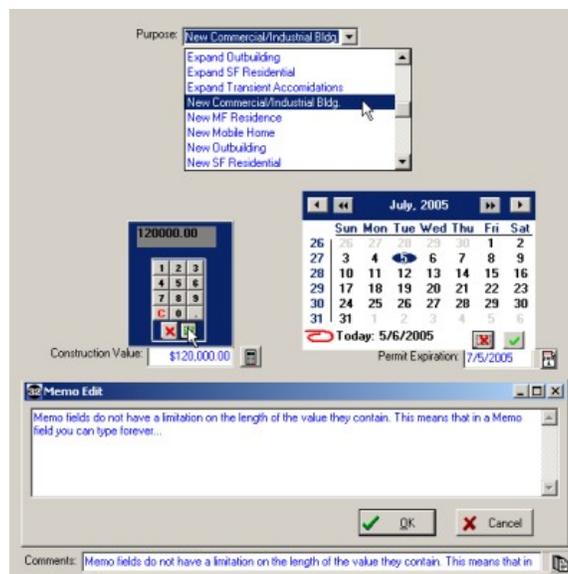


PTWin32v2 Report Writing Window



Field Entry Assists (PCLM)

Many PTWin32v2 fields contain buttons that assist in the entry of a value. “Number” fields display a keypad, and “Date” fields allow users to select a value from a calendar. Combo box or pull down fields display a list of possible values, and “Search” fields allow users to locate related records using numerous criteria. “Password” fields allow agencies to change hidden values, and “Memo” fields have no specified length, so there is no limit to what may typed into these fields. A number of “Borrow” functions allow users to populate many fields at once by copying them from another PTWin32v2 record.



PTWin32v2 Field Types Window



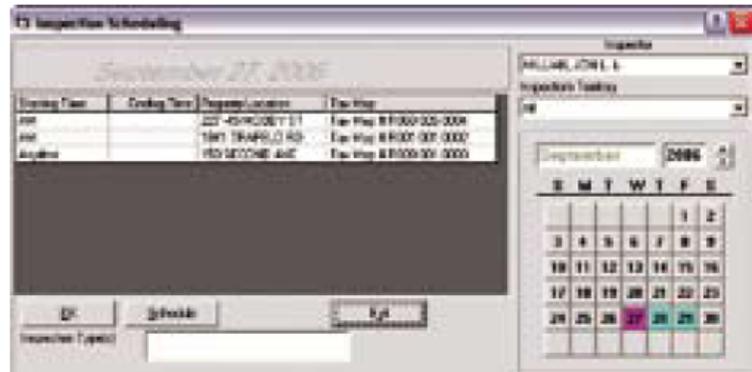
There are many data entry assists built into PTWin32v2. Combo box or pull-down fields allow users to select a field value from lists agencies control. Date fields permit users to select values from a pop-up calendar, while Number fields display a pop-up keypad. Users can type forever into a Memo field because it has no specified length, and Search fields allow users to look up related values. Fields that assist with data entry are found all over the PTWin32v2 system.

PG GOVERN PG Govern Software Suite by PG Govern

Permit Tracking and Inspection Scheduling

The Permit Tracking & Inspection Scheduling module contains PG Govern Software that provides a City the ability to register, consolidate and track information related to a parcel of land or property records. The core of the module is a centralized data repository that stores and automates the flow of information between divisions like Building, Planning and Engineering as well as the issuance of licenses. With a flexible database design that can be tailored to specific requirements, the structure allows for the recording and retrieval of various land-related data that can be different for each type of permit, license, approval or decision.

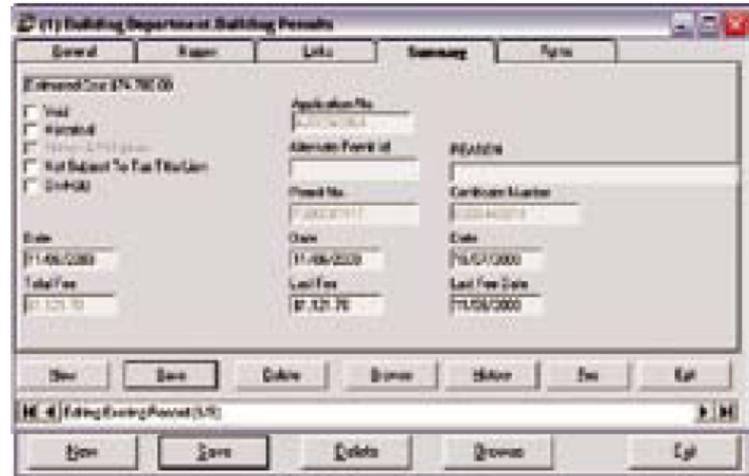
Inspection Scheduling



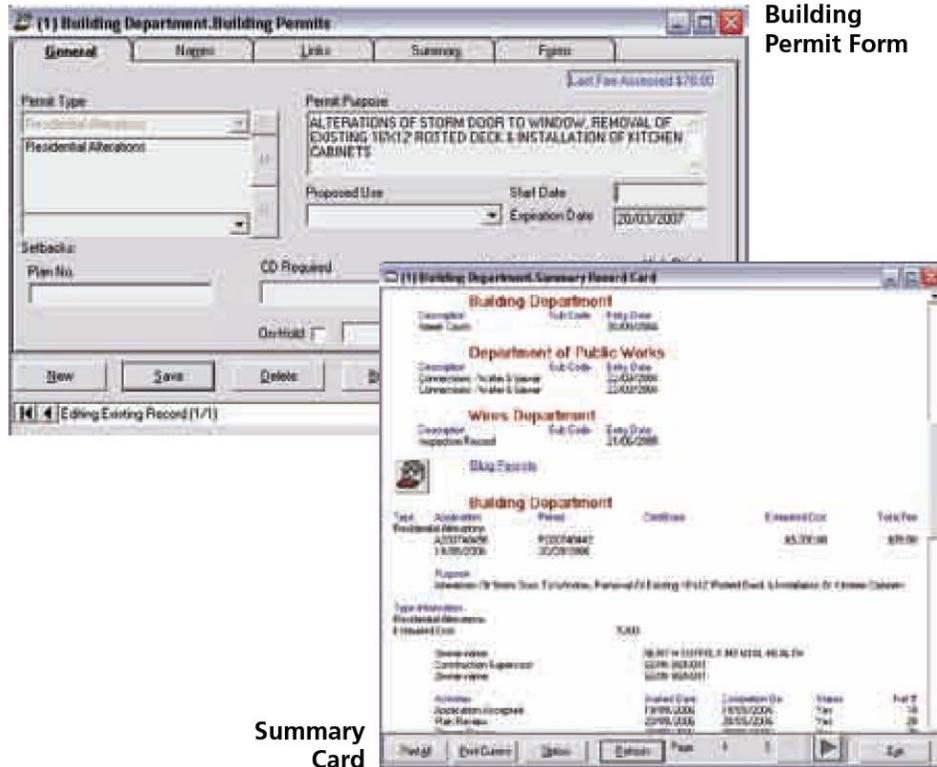
Inspection Scheduling

For each type of permit, users can define all steps required for completing the process. These activities can query other databases in order to apply business rules, schedule automatic inspections and send e-mail notifications or set-up reminders that will issue critical messages at specific dates. Core functions of Property Control, Mobile Inspection and GIS Integration complement the Permit Tracking and Inspection Scheduling module to create a complete Land Management System.

Permit Information



Building Permit Creation



Building Permit Form with Summary Card

Complete Property Control

The property-based control function ties all the land-locating functions together in a property information database.

Key Benefits:

- o All data stored only once in a central repository
- o Complete parcel genealogy history and retrieval
- o Database can be divided into jurisdictions
- o Integrated to GIS with full imaging capability
- o Hazards, constraints, restrictions available to all departments and divisions within the City of West Sacramento
- o Non-parcel functionality to support the definition of entities, such as streets or intersections

Mobile Inspection

PG Govern’s Mobile Inspection and Desktop Inspection components provide a Web-based version of the Inspections function and search screens in PG Govern Software. PG Govern’s wireless field device is a mobile government application that enables inspectors to extend processing capabilities to the field. With an Internet connection on a wireless-enabled hand-held PDA unit or notebook, inspectors can run queries and update the PG Govern database instantly while on-site. By transmitting information in real-time back to the

database, this solution provides a cost-effective way to increase productivity and efficiency. Time commuting to and from the office to upload and synchronize data is completely eliminated. All users have access to the same information and all updates are made in real-time.

GIS Integration

PG Govern software integrates with an agency's existing Geographic Information Systems (GIS), and data can be transferred from PG Govern Software. Information such as selected parcels, owner information, inspections, permits, complaints and other related data can be pulled into a GIS application from PG Govern's database. Selected properties can be passed from GIS into PG Govern's software to derive a record set of parcels in which an action is to be taken.

Real Property Tax Billing

The Real Property Tax Billing module is a comprehensive software module designed to reduce the time and energy required to process taxes and payments. Integrated with Property Control, Mass Appraisal, Utility Billing, Special Assessment, Accounts Receivable and Cash Collection, the system is able to receive all changes and valuations made to the property database.

Key Benefits:

- Supports the automation of payment data entry using scanning devices
- Bills can be generated annually, bi-annually, quarterly and monthly for regular, prorated or estimated taxes
- Bills can be printed according to a user-definable sequence
- On-line interest computation
- On-line receipting of fees
- Unlimited taxation base, taxing levies and exemptions
- Correspondence, exemption and abatement tracking
- Unlimited billing history and duplicate bills on demand
- Reminder Notices
- Partial and Estimate billings
- Abatements and adjustments functions with audit
- Full multi-level security
- Supports tax deferral and prorating
- Values can be capped for property taxes
- Penalty and interest charges on delinquent Real Estate bills can be separated
- Credit on tax bills can be generated
- Percentages can be entered and maximum amount defined when splitting amounts between levies
- Address forwarding function for clients with alternate locations



HdL Software Suite by The HdL Companies

HdL Software Suite provides full service software solutions for local government. HdL provides business process analysis, software training and implementation to ongoing software support.



- Business License**
 - Track underreporting
 - Find hidden businesses
 - Process special taxes and fees & more...
- Animal License**
 - Track current & historical tags
 - Track vaccination dates & types
 - Track breed and color & more...
- Code Enforcement**
 - Track and manage code cases
 - Track inspections, notices, letters
 - Link photos, letters and other docs & more...
- Permit Tracking**
 - Calculate fees and values
 - Schedule and track inspections
 - Manage conditions, approvals and appeals & more...
- Online Web** (module to Business License Software)
 - Accept renewals online via your website
 - Securely process credit card payments
 - Accurate fee/penalty calculations & more...
- Fire Inspection** (module to Business License Software)
 - Track inspections & violations
 - Track fire systems & locations
 - Track underground tanks & more...
- False Alarm**
 - Process Alarm Registrations
 - Track alarm incidents
 - Calculate fees, print invoices and renewals & more...

The HdL Software Bundle

Business Licenses

HdL Business License Software helps organizations improve efficiency while increasing business satisfaction and reducing staff time by accepting renewals via the web. The Business License module helps maintain communication with businesses, collecting balance dues and reducing delinquencies. For State of California clients, increase revenues by finding unlicensed businesses in sales tax and property tax data.

HdL Business License Software can facilitate improvement of an agency's business process, and increase the City's revenues. Track licenses, owners, emergency information, tax I.D. numbers, and expiration dates.

Key Benefits:

- Process applications and calculate fees accurately
- Generate license forms and renewal notices
- Track and notify delinquencies

To find transparent businesses, link with other data sets such as:

- Sales Tax
- Property Tax
- California AB 63 and other external data sources
- Generate non-licensed reporting from certain data sets

Provide information about the business community:

- Business type, SIC codes, and NAIC codes
- Number of employees
- Number and plate numbers of vehicles
- Number of units, such as hotel rooms or apartments
- Allow paperless department approvals
- Export data to spreadsheets, Microsoft Access, or other 3rd party software products

Code Enforcement

HdL Code Enforcement Software allows users to track code enforcement cases from initial complaint to final abatement. Tracking violations such as building codes, weeds, debris and abandoned vehicles allows the user to always know the status of every violation or inspection. The module allows the user to attach photos and other important documents to each and every violation.

Software Features:

- Efficiently manage code enforcement issues
- Track code enforcement cases and compliance deadlines
- Track inspections, conditions and abatement
- Quickly retrieve violation history by location, owner or tenant
- Print several standard lists and forms Easily create user-defined reports
- Links photos, spreadsheets, and other electronic documents to code cases

Permits

HdL Permits Software helps agencies manage the complex permitting process from application through final inspection. Our software solution will help governments propel their permitting process to a new level.

Software Features:

- Track all pre-construction activities, construction permits, code enforcement, engineering, and public works
- Log department approvals, inspections, conditions and more
- Calculate fees and construction values
- Retrieve property data
- Check permit status over the internet
- Respond quickly to customer inquiries
- Use inspectors' time efficiently
- Link photos, spreadsheets and other documents
- Maintain parcel data in the HdL Land Management Module
- Access complete information on all past and current permits

- Contractor information is stored for quick import to future permits
- Place Holds or Notices on properties or permits

HdL Map

HdL MAP calculates revenue from major tax streams and geographic areas within a city. The HdL mapping system does not replace existing GIS software; instead it complements the user desktop with tools that enable ordinary, nontechnical users to use HdL systems.

All software programs offered by HdL easily link to HdL MAP, allowing the user to select a map view of parcels by clicking on an HdL MAP icon from within any HdL program. The transfer of data is quick and seamless. The map view highlights the parcels selected, centered in the screen and zoomed to show enough of the surrounding area to enable visual identification of nearby streets. Revenue information is accessed by parcel, street address, owner/business name, or geocode location.

Software Features:

- Map the largest tax producers such as sales tax, property tax, business license, utility tax, documentary transfer tax and transient occupancy tax
- Identify natural business clusters
- Illustrate market voids
- Identify emerging economic opportunities
- Display land use and zoning codes
- Array parcels by value
- Identify absentee-owned or Pre-Prop 13 parcels
- Array parcel transfers of ownership
- Plot special geographic areas
- Find unlicensed business activity



Sales Tax Analysis and Management Support

HdL software translates sales tax data into comprehensive quarterly analyses and reports on the client's sales tax trends by individual business, business type, and strategic economic areas. The application helps monitor the economic performance of specific retail and industrial components of the local government's tax base through comparisons with regional and statewide trends. The sales tax application can serve as the client's resource on sales and use tax related issues, including budget projections, legislative proposals, and sales tax voids and opportunities.

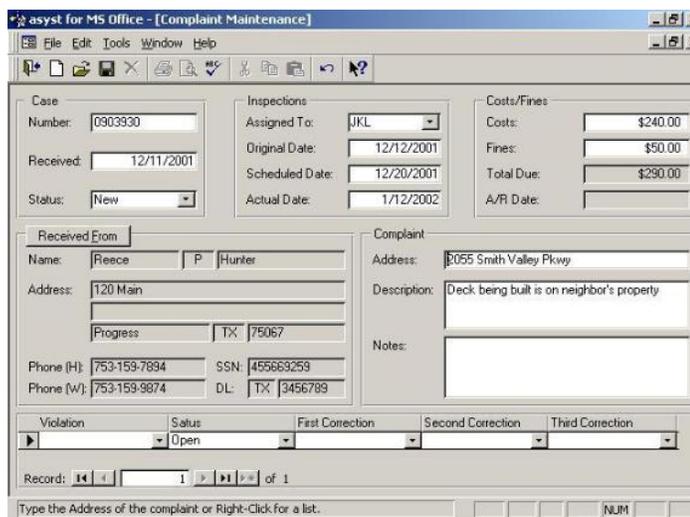
The application provides and updates a quarterly Windows-based software program that allows clients to review their sales tax data for a variety of financial, management, economic, and planning functions. The software can be linked to other revenue sources such as property tax and business license data.

JUST imagine... asyst **asyst® by United Systems Technology**

The asyst® product line includes fund accounting, encumbrance accounting, budgeting, accounts payable, purchasing, cash receipts, payroll, utility billing, tax billing, and municipal court. The applications are fully integrated, eliminating the need for manually-entered general ledger transactions. United Systems Technology, Inc. (UST) offers help in loading the new software, through implementation, training and on-going support. UST offers unlimited support calls, remote connection for problem solving, and enhancements throughout the year as part of their standard support. USTI has municipal permitting software based on over 30 years of governmental software experience with over 2,300 customers, and developed around the industry leading Microsoft Windows platform.

Code Enforcement

Asyst® Code Enforcement provides a centralized database of code enforcement complaints and handles the subsequent assignment of a code enforcement officer to inspect the alleged violation. The asyst® Code Enforcement software schedules initial and subsequent inspections by the assigned code enforcement officer. This software application also allows the addition of code violations and requires corrections after the code enforcement officer has returned from the inspection. The asyst® Code Enforcement monitors the status of the violation during the "cure period". asyst® Code Enforcement if necessary handles billing of the owner for corrections made by or on behalf of the city. All parcels are maintained by asyst® Land Management and all data, such as violation and correction codes, are user definable. Open and closed violation reports, inspection schedule reports, and owner violation letters; asyst® Code Enforcement is one of a comprehensive system of individual asyst® applications.

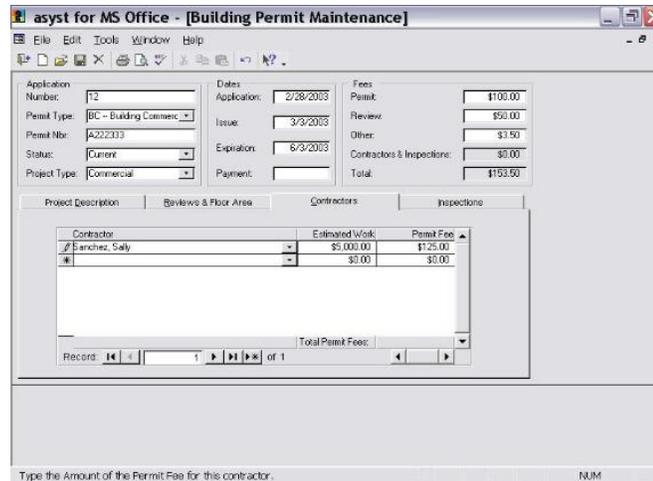


Code Enforcement application window

Building Permits

asyst® Building Permits provides an efficient system for issuing and maintaining building permits throughout the construction process. asyst® Building Permits allows the City to enter and maintain permit applications for a variety of permit types. The application keeps

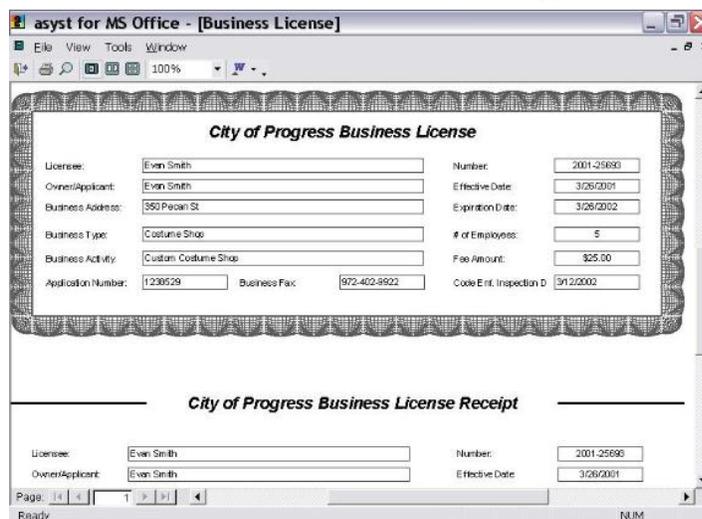
track of the areas and dollar values involved in the project being permitted. The asyst® Building Permit application can assign any number of contractors and contract values to a permit and also recording the inspections required on each permit. The interface allows the user to enter and maintain the permit fees associated with each permit and the dates on which each is paid. The interface allows the user to record the necessary inspections, the schedule dates, any necessary re-inspections and the results of each inspection along with unique inspection notes. The asyst® family operates in either a single-user or networked PC environment.



Screenshot of the Building Permit application

Business Licenses

asyst® Business Licenses provides an accurate system for issuing business licenses for any number of different business license types issued by the City of West Sacramento. The



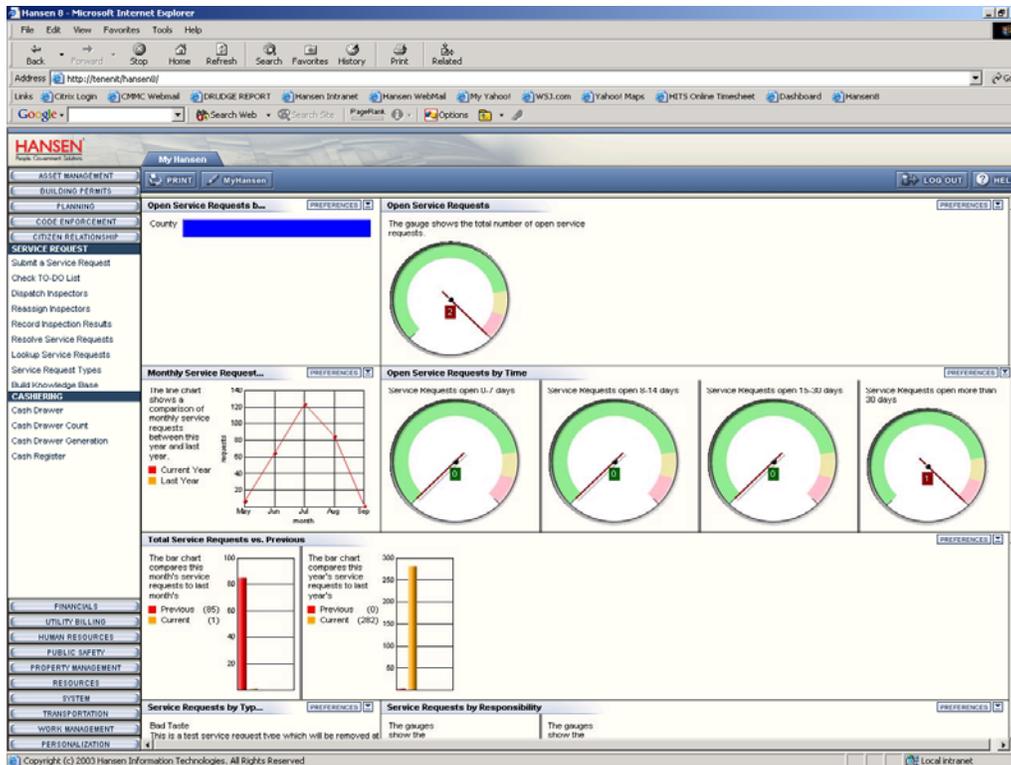
application allows for input to enter and maintain license applications for a variety of license types while keeping track of the applicant, the business owner and the physical location of the business. The asyst® Business Licenses module tracks the effective date and renewal date for each license and entering and maintaining the license fee factors and the actual fee associated with each license and the dates on which each is paid. Use the application to automatically send renewal notices to businesses when licenses must be renewed and print the business license to be displayed in the business establishment.



HANSEN

Hansen 8™ by Hansen Technologies/Infor

Hansen Information Technologies is a leading supplier of application software that helps manage the operations of government. Hansen's products aggregate citizen and business requests for services and business transactions, across the enterprise, offering multiple channels (i.e. web portal, kiosk, front counter, telephone, and email) of secured access to back-office functions.



Hansen 8's web-based portal

Core Products

- **Building Permit Solutions**
 - *Streamlined Application Processing*
The Construction and Use Permits module is used to manage building, use, and project planning applications. It leads contractors through a consistent, clear, and coordinated application process. The Hansen system provides electronic application forms, automatic and simultaneous routing to reviewers and inspectors, electronic red-line reviewing, fee scheduling, escrow payment capability, and completely flexible codes, definitions, and business rules.
 - *Building Application Template*
The Building Application template tracks any user-defined permits that are considered to be construction or building-related, such as new buildings, additions, electrical, plumbing, and commercial.

- *Use Template*

The Use template tracks any user-defined permits that are considered to be affecting the current use of a site such as a rental property or a hazardous storage facility. Agencies can also use it to track the temporary use of a property such as a mobile home or a street for a parade or block party. In addition, it can track the permanent change of use of an existing site which may require a change to zoning, such as a factory that is being converted to a brew pub.
- *Project/Planning Template*

The Project/Planning template is used to track large projects or planning-related permits. With a large development, the process of obtaining approval can take years. This approval can involve hearings, presentations to committees, and economic and environmental impact studies (among others), before a list of high level conditions is attached and approval is granted to begin permitting. This template addresses these concerns, and can even handle projects with a phased approach. The Project/Planning template tracks these procedures to the point of approval and then transfers the project conditions to the Building Application template described above.
- **Code Enforcement Solutions**
 - *Complete Codes Blend*

Whether handling a complaint for an abandoned vehicle or documenting a lengthy code enforcement action that may involve a future court challenge, Hansen offers a complete way to capture and display daily activities in the field and the office. With Hansen's Code Enforcement module, users can identify violations by parcel, provide notifications to responsible parties, and establish follow-up inspection programs to ensure that corrections are made.
- **Online Licensing**
 - *Self-Service Government*

Offer online licenses with powerful DynamicPORTAL technology for Web-enabling state and local government licensing processes. The basic Hansen Licensing module is used in a wide variety of applications and accommodates the entire licensing process for virtually all types of licensing activities including:

 - Business Licenses
 - Professional Licenses
 - Trade Licenses
 - Use licenses

DynamicPORTAL guides the applicant through all phases of the application or renewal process including online form submission, status review, payment, and approval notification. DynamicPORTAL incorporates an agency's existing licensing instructions and forms into Web-based services via PDF format. Citizens can either choose to fill out the forms and submit them online, or if required, they can download the forms and personally sign and return them via mail, fax, or at a counter.

- **Public Works Solutions**

- *Meter Management/Reading*

Hansen's Version 7.x Meter Management provides users with a convenient and efficient way to manage all meter activities, including meter readings, maintenance, and exchanges. Color-coded or highlighted displays help agencies quickly determine levels of meter usage, meters in need of maintenance, missing or estimated readings, and substantial deviation from previous or average readings. When used in conjunction with Hansen's Sewer, Water, or Storm modules, the special Meter Exchange feature automatically updates data pertaining to each exchange, such as location information, placement in the route, and structural information.

- *Parks Management*

Hansen designed their Parks module specifically to handle the needs of park and facility managers. Hansen's Park module supports maintenance and repair activities associated with parks and equipment assets. It allows agencies to consolidate their inventories into a single database for quick access and display for assets including the following:

- Park locales
- Acreage
- Playground
- Turf
- Fixed and moveable equipment
- Buildings
- Lights
- Trees
- Sidewalks
- Signs
- Landscape
- Storm Inlets
- Usage Area
- Water assets (valves/wells/storage units/hydrants/backflows)

- *Property Management*

Hansen's Building and Facilities module was specifically designed to handle the needs of building managers. Hansen's Building module helps support the every day maintenance and repair, to complex analysis of maintenance scheduling, and histories—all with a variety of tools and reporting options.

Hansen's Building module allows users to consolidate the following data into a single database for quick access and display:

- Building type and location
- Service status
- Building assets
- Building service lines
- All building histories

- *Stormwater Management*

Hansen's Storm module helps agencies comply with the latest US Federal Environmental Protection Agency (EPA) regulations, and also justifies to appointed and elected officials how communities are safeguarding the public

in case of excessive periods of rainfall. Hansen can help create a 'best of class' database of all storm system catchbasins, drainage inlets, open ditches, channels and mains.

The Storm module consolidates National Pollutant Discharge Elimination System (NPDES) information into a single relational database for instant access and display. By having all NPDES information in one location, managers can reduce possible stormwater pollution of streams, lakes, rivers and estuaries.

- o *Street Management*

Hansen's Street module provides a traditional fixed-segment data model for managing urban street segments. This system is appropriate for city and county transportation departments. Street assets include bridges, intersections, appurtenances, and trees. Agencies can store data for each asset, as well as schedule, complete, and cost work orders and inspections against individual assets or groups of assets.

- o *Wastewater Management*

Today, Hansen's Wastewater clients manage and operate over 100,000 miles of sewer main, worldwide. The Hansen system can tune the performance of a collection system, given its age, location, condition, and service requirements. Agencies have the ability to manage their complete network of sanitary, combined and force main sewers, including mainlines, manholes and services.

Hansen designed its Sewer module with a thorough understanding of gravity-fed and force-main sanitary sewer systems. Sewer connectivity is crucial, so Hansen's Sewer module includes a Downstream/Upstream Network Browser as a standard feature. Hansen's Network Browser traces sewer networks, identifying areas affected by breaks and stoppages.

Hansen's inspection capabilities allow users to track labor, material, and equipment costing and store the information in the database. Results link into Hansen's expert decision support features to help infrastructure personnel by making recommendations regarding industry accepted repairs, replacements, and renewals. The ability to access and display multi-year inspection results further helps identify critical trends that may impact important design and construction considerations. Finally, results integrate directly with powerful hydraulic and static modeling packages to perform important "what if" analyses.

- o *Water Management*

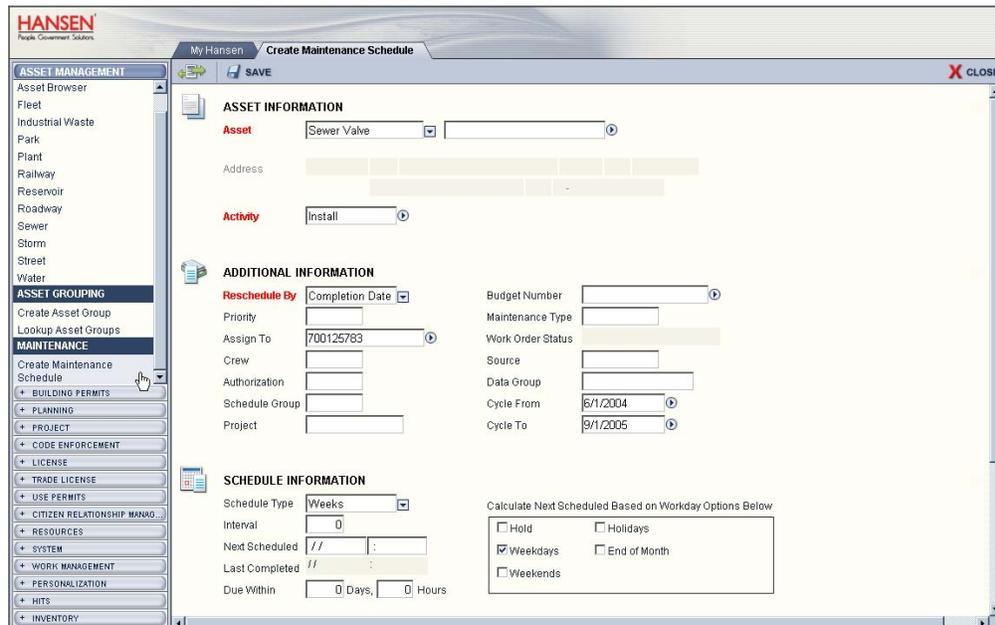
Maintaining and operating pressurized assets to deliver potable water to homes, commercial establishments, and industrial complexes is quite different from maintaining an average plant or building. Developing a database, establishing critical shutoffs, cross-referencing service connections, meters, and backflows, and monitoring periodic test results, must all be captured and stored over the life of the asset — sometimes over generations. The Hansen system can identify and inventory every water main, valve, hydrant, meter, service and backflow device, that also allows other applications, like Hydraulic Modeling, GIS, and SCADA to utilize a single database.

Hansen’s Water module was designed specifically to help agencies handle the unique challenges of maintaining a potable water network. These include isolation of mains, valve and flushing exercise programs, commercial meter maintenance schedules, and residential meter changeouts. The Water module gives agencies the ability to record and track inspection results, work histories, job costing information, and more. The Water module takes hydraulic modeling into account, allowing users to enter the results of pressure and flow testing.

- o *Work Management*
Hansen’s work management features employ operational strategies to provide a streamlined system for initiating, tracking, and finalizing work orders on various assets.

Special features include:

- Asset grouping & group projects
- Routine & preventive maintenance scheduling
- Activity-based costing
- Task level management
- Integration with Hansen’s Customer Service & asset modules



The Hansen 8 Create Maintenance Schedule screen

Add-Ons

- Hansen GIS Solutions

Hansen has several options for adding spatial decision support tools to give agencies the most comprehensive GIS solution, from integrated mapping within Hansen’s 7 Series solutions to interfaces that create, link and synchronize Hansen data with leading GIS applications.

An agency's GIS is only as good as the information behind it; Hansen's Services Division is there to assist in the selection of a new GIS application or integration with an existing GIS platform with Hansen's open data model.

- o *Integrated Map Viewer™ (IMV) – for general users:*



Query, view, and interact with an agency's assets and parcels on a map from within Hansen Series software using Hansen's Integrated Map Viewer™ (IMV).

IMV gives the non-GIS users in an organization access to interactive maps that can help them understand spatial relationships, locate and identify assets fast, and make better decisions. ESRI MapObjects license included.

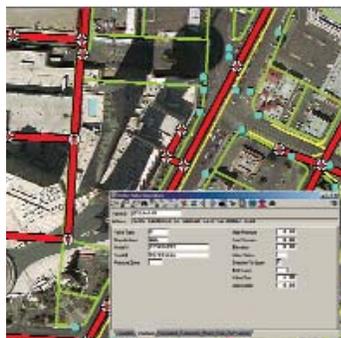
- o *GeoAssistant – for desktop GIS users:*



Query the Hansen database from the GIS user interface. Display assets, parcels, work orders, service requests and more on the map and view the attribute data pulled from Hansen. Link assets and parcels on the map to Hansen inventory records quickly and easily.

Hansen's GeoAssistant™ lets users interact with their Hansen data in ArcGIS. Requires ESRI ArcGIS 8.x license.

- o *GeoAdministrator – for power-user GIS administrators:*



GeoAdministrator is the premier data management solution for Hansen and ArcGIS users. Create multiple point and linear assets and service lines in both GIS and Hansen all from a map; join or split linear assets, and delete/expire selected assets; synchronize attributes and perform QA/QC with Hansen's GeoAdministrator™.

- **Hansen Mobile Solutions**

Hansen Mobile Solutions (HMS) provides a fully functional, field automation solution. HMS enhances the capabilities of Hansen's application enterprise to provide scaleable, efficient, and cost effective solutions for improving business processes in the field. Beginning with Hansen's "FieldWORKS" application in the late 1980s, Hansen continues to revolutionize government field operations with Windows CE 3 and Handheld PC 2000 compatible applications today. These intention-specific

solutions are tailored to match an agency's practices so that every screen streamlines work in the field. With the flexibility of Hansen's field automation, users can update records without interruption, even when roaming in and out of service range.

- *HMS Advantages:*
 - Field crews and inspectors can receive daily assignments without visiting the office.
 - Field crews can directly access supporting information from their Hansen Version 7.x database.
 - Completed activities can be transmitted directly back to the Version 7.x database.
 - New assignments can be immediately dispatched to the field for completion.
 - Supervisors can adjust schedules immediately if problems arise.
- *Connectivity Options*

CDPD (Cellular Digital Packet Data) communication is ideal for field automation applications where employees operate in large, undefined geographic areas. Other options include wired-local area networks such as Ethernet or short distance wireless LANs. When wireless capabilities are not available, dial-up connectivity can round out an information enterprise in most locations. With satellite phone services, connectivity with Hansen Mobile Solutions can be established for even the most remote users.
- *Secure Transactions*

HMS security mechanisms exist on many levels. When used in conjunction with good security policies in an organization's current network topology, HMS provides open access to authorized individuals. Secure transactions begin with good security policies in an organization's current network topology such as a robust firewall. For added security, Hansen performs transaction certification at the mobile application server. This process ensures an appropriate sending source has initiated the transaction and the appropriate routing is performed to the receiving destination.
- *Physical Architecture*

HMS takes advantage of server side processing as required, while the functionality is supplemented by distributing the processing environment to the mobile devices. Four things are needed for Hansen Mobile Solutions: Hansen's back-office products that integrate with the mobile solution, an application server, an appropriate supported mobile platform for the field crews, and some type of TCP/IP communication between the mobile devices and the application server.
- Hansen Mobile Solutions applications:
 - Work Management
 - ✓ Perform assigned work
 - ✓ Record Costs and Results of Work
 - ✓ Check other pending work and Inspections for an Asset
 - Customer Service
 - ✓ Verify customer calls and create work orders

- ✓ Check historical complaints
 - ✓ Perform service related orders
 - Permit Inspections and Code Enforcement
 - ✓ Download Pending inspections by Address or Parcel
 - ✓ Submit Violations
 - ✓ Approve or Fail inspections based upon selected ordinances
 - ✓ Verify all inspection conditions are met
 - ✓ Check ordinances
 - ✓ View premise history
 - ✓ Build case log
 - ✓ Verify existing permits
 - Other Hansen Mobile Solutions:
 - ✓ FieldWORKSTM™
- **Hansen's Executive Dashboard**

Hansen's Executive Dashboard highlights key performance indicators (KPIs) so agencies know exactly how they are doing at any time. Users can also detect any problems at a glance, from anywhere, through a Web browser. Display panels come in a variety of formats including:

 - Bar chart
 - Line chart
 - Pie chart
 - Odometer
 - Angular gauge
 - Linear gauge

Hansen delivers a unified system for measuring an agency's specific performance questions. How do departments compare on resolving service requests? Does an agency know how many applications currently remain open? Where are most of the unpaid fees? Could budget dollars be spent more appropriately? Hansen answers all these questions in a single interface.

 - Flexibility

Agencies determine which display panels they want to view and the system remembers those panels for them. In the angular gauge for instance, an organization can set the limits and the performance percentages that fall within green, yellow or red zones. Users can even filter their results or have more custom panels added, even for data outside their Hansen database, using standard SQL queries.
 - A Total Solution

Combined with Hansen's powerful core solutions, an agency's work directly affects a budget's bottom-line. Hansen's Executive Dashboard frees up work time from time spent reporting on it while giving decision-makers the key information they need every day.
- **Hansen's *Dynamic*PORTAL™**

This add-on product provides several intention-specific service portals for its customers. These portals allow state and local governments to provide automated services from their Web sites as a service to their citizens/customers.

- Directly tied to Hansen's Version 7.x application
DynamicPORTAL is not just another thin email-based service. It interacts with Hansen enterprise information to provide the highest level of automation possible. If desired, data entered by the citizen can be validated in real-time against an agency's live Hansen database.
- Augments existing Web strategies to provide very deep services.
Agencies experience no loss of identity. Unlike other e-Gov services, DynamicPORTAL provides managed services without inserting itself between citizens and government.
- DynamicPORTAL is a managed portal.
Hardware and software used to provide DynamicPORTAL services is managed at a state-of-the-art multi-million dollar facility with round the clock monitoring and redundant systems.
- Advanced Web services with low cost of ownership.

DynamicPORTAL Products:

- Online Problem Reporting/Complaints
 - Seamless Internet Integration
Hansen's DynamicPORTAL technology delivers a total solution for web enabling a call center operations and providing 24 X 7 access to report problems and potential code enforcement violations. DynamicPORTAL offers a complete front-to-back office solution that can save an agency time and money by eliminating the need to build and maintain costly interfaces using an organization's own information technology staff, or hiring an outside company who specializes in developing e-government applications.
 - Easy to Use
Citizens can use DynamicPORTAL technology to report any number of public works or code enforcement problems right from their existing Web site. Hansen's back-office Customer Service/Call Center module automatically prioritizes and routes the "online problem" to the appropriate department and eliminates the need for manual process that are typical of e-mail based systems. When using the system, a user is guided through a simple three-step process that identifies the problem, location of the problem, and even provides for a map where the user can pinpoint the exact location of the problem online using an electronic "push-pin" on a map. If the user chooses to be notified, e-mails will be automatically sent notifying them of the status of the problem or code enforcement violation as it moves toward resolution.
- Online Payments
 - Pre-integrated Transaction Functionality
DynamicPORTAL technology extends the capabilities of Hansen's enterprise solutions to the Web by providing online payment capabilities using standard credit card transactions. Because DynamicPORTAL is already integrated to the Hansen back-office system, there are no interfaces to develop and maintain, and the security issues are handled for an agency.
 - Services

Online payments can be taken for a variety of services that agencies track in Hansen's enterprise solutions including:

- Permit fees
- Inspection fees
- License fees
- Utility payments
- Tax payments
- Secure Transactions
DynamicPORTAL facilitates the online payment process via a secure transaction engine that will deposit money directly into designated accounts. The transaction is then automatically posted to the appropriate permit, license, utility or tax account that originated in the Hansen enterprise system.
- Extend the convenience of online payments to citizens and reduce the lines at a front counter with Hansen's DynamicPORTAL technology.
- Online Permitting
 - Online
DynamicPORTAL enables the process of submitting permits and inspections, performing status queries, and issuing permits for basic (non-review) building permits with Hansen's Permitting Solutions. Because most building permit activity is focused on the simple permitting process, DynamicPORTAL can have a significant impact on reducing the foot traffic of a permitting desk. This enables planning department personnel to focus more on the complex land use issues and projects while providing builders and citizens excellent customer service.
- Internet Data Publishing
 - Central Data Warehouse
Hansen's Version 7.x enterprise database is the robust data warehouse behind all of the Hansen solutions. It includes many of the items that citizens want to know and stores them in a single, open database. Some of the more common information stored in Hansen's Version 7.x solution, which can be published online includes:
 - Zoning issues and public notices
 - Ownership and tax information
 - Utility and billing information
 - Street and highway repairs
 - Information on business in a jurisdiction

SYSTEM EVALUATION



Offices:

North Carolina

Texas

Florida

Missouri



Submitted by:

Geographic
Technologies
Group

Understanding Local Government

Geographic Technologies Group

648 North Spence Avenue

Goldsboro, NC 27534

1.888.757.4222 toll free