

Training Guide Table of Contents

General Program and Database Organization	2
Common Themes and Terminology	3
Menu Guide	6
Category Data	8
Contractors/Vendors	10
Crews	12
Employees	15
Equipment	18
Locations	22
Location Features	29
Location Segments	33
Materials	35
Material Adds, Transfers and Returns	38
Projects	39
Routes	43
Tasks	46
Funds	48
Purchase Orders	51
Vouchers and Warrants	56
Service Requests	58
·	61
Service Request Status Callers	62
	_
Service Request Settings	64 65
Daily Activities	
Route Activities	68
Crew Activities	69
Adding Activity Records	70
Add, Modifies and Deletes	73
Searching, Finding and Locating	74
Reporting	76
Listing Reports	77
Cost Reports	78
Activity Filter	79
Asset Attributes	81
Asset Registry	82
Asset Search	83
Betterments, Writedowns and Disposals	84
Material Transaction Log	85
Notes/Documents Cross Reference	86
Overhead Allocation	87
System Settings	88
Toggles	90
Updating Rates	90
User Powers	91
Database Maintenance Functions	94
GIS Interface	96
Version Information	97
Index	98

PubWorks Training Guide 1 6/10/2010



General program and database organization

PubWorks is software designed to record information about the activities and the entities of your public works department. Recording activity information will give you the power to analyze costs and operational efficiencies in a wide variety of ways. We call this the **Activity Model**.

In **PubWorks**, an activity is the combination of an *employee* performing a *task* at a *location*. In many cases, this activity is performed with the aid of one or more pieces of *equipment*, consuming one or more *materials* to complete the task. Each of these activity *contributors* has an associated cost based on the number of hours, miles or units consumed. The total activity cost is automatically derived by the sum of the contributing costs.

The Activity Model

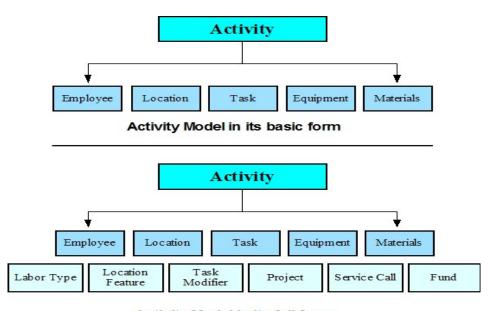
- The activity model is the basis of PubWorks.
- In its most simple form an Activity = Employee + Location + Task
- A more complex Activity = Employee + Location + Task + Equipment + Materials
- Activity Cost = Labor Cost + Equipment Cost + Material Cost
- Activities are, in essence, the time cards filled out by your employees every day.

As activities are recorded in the *PubWorks* database, a wealth of data is accumulated describing your operation. *PubWorks* has been designed to be extremely flexible, consistent and easy-to-use – thus expediting the data entry process and helping to assure that entered data is accurate and reliable.

PubWorks provides a rich set of reports enabling you to comprehensively present and analyze cost data on the basis of location, task, labor, project, fund, contractor, equipment used and materials consumed.

Activities represent the top level of the *PubWorks* data hierarchy. Entities that contribute to activities (employees, tasks, locations, equipment, materials, funds, projects and purchase orders) represent the middle tier.

The bottom tier of the database hierarchy consists of what are called "category" data. Category data is used to help assign user-defined, standard attributes to data of the middle tier. Making use of standard category data items provides for a high degree of flexibility, better data organization and enhanced reporting power.





Common Themes and Terminology

PubWorks makes use of a number of common elements to make the program easier to understand and use. Most of these elements should be very familiar to all Windows users, some though, are extensions of common Windows elements so they require some additional explanation.

Button Bar



The *PubWorks* button bar appears on all of the more complex *PubWorks* windows and it provides a straightforward means to perform a wide variety of functions.

- Reports displays a menu of report options particular to the current data table
- First, Previous, Next and Last allows you to move among the records in the table.
- Add New allows you to add a new record to the table
- Save allows you to save changes made to the currently displayed record
- Cancel allows you to undo any unsaved changes that you might have made to the displayed record
- Delete allows you to delete the currently displayed record
- Locate provides a means to locate a record
- More allows you to save documents and date-stamped notes on any record

Codes and Names

All data are stored in the *PubWorks* database as *records* in *tables*. Each record possesses a code and a name and these codes and names must be unique within a particular table. For example, two key tables are Locations and Tasks; you can not have two tasks with the code T37 but you can have a task coded as T37 and a location coded as T37.

Names can be up to 64 alphanumeric characters. Generally, codes are can be up to eight alphanumeric characters but there are a number of exceptions where the codes can be 16 alphanumeric characters. Proper casing is highly recommended because ALL CAPS CONSUME GREAT DEALS OF SCREEN AND PRINT REALESTATE.

There are some exceptions and special cases:

- Employee names are not necessarily unique thereby supporting things like two employees named "Smith."
- Codes for Equipment, Locations, Location Feature, Materials, Projects, Funds and Purchase Order allow up to 16 alphanumeric characters.
- Location Feature codes and names must be unique but only in the scope of their parent Location.
- All characters for names and codes are permitted with the exception of single and double quotes.

Data grids

Data grids are used to display information in tabular form, not unlike an Excel spreadsheet. The rows and columns of the various grids in *PubWorks* will be dependent on context – the sample below is taken from the employee activity log. Usually, grids are for display only, but some (like the tasks grid and the category data grids) support direct updating.

Other grid functions include:

- **Column-Click Sorting**. Here, by clicking on grid column heading, the data in the grid will be resorted based on the column heading clicked
- **Double-Click Locate**. Here, by double clicking a line item in the grid, the details of that clicked row will be displayed.

PubWorks Training Guide 3 6/10/2010



• Radio-button-filtering. Here, a set of radio buttons (see the sample below) are used to limit the amount of data displayed in the grid. The **Custom** radio button allows you to set a user-specific date range.

_						-	-		-	=
			66 Activity Recor	ds - 01/01/2010 through 0	6/08/	2010				
	Act ID	Date	Location	Task	LT	Reg	OT	Labor (\$)	Total (\$)	1
	34c	06/08/10	Babbit Lane	Drainage/Culvert Repair	RT	8.00	0.00	150.00	150.00	
	152461	02/15/10	Pipe 1286	TV Line	BT	4.00	0.00	75.00	163,85	
	173235	02/15/10	Pipe 536	Connector Inspection	RT	4.00	0.00	75.00	132.30	
	173222	02/12/10	Pipe 467	Line Repair	BT	4.00	0.00	75.00	92.10	
	152448	02/12/10	Pipe 1274	TV Line	RT	4.00	0.00	75.00	112.65	
	173209	02/11/10	Pipe 400	Connector Installation	BT	4.00	0.00	75.00	203.00	
	152435	02/11/10	Pipe 1262	TV Line	RT	4.00	0.00	75.00	98.33	
	173196	02/10/10	Pipe 367	Connector Inspection	RT	4.00	0.00	75.00	161.01	
	152422	02/10/10	Pipe 1250	TV Line	RT	4.00	0.00	75.00	269.00	
	173183	02/09/10	Pipe 306	Line Repair	BT	4.00	0.00	75.00	5,931.00	
	152409	02/09/10	Pipe 1239	TV Line	RT	4.00	0.00	75.00	223.00	
	173170	02/08/10	Pipe 227	Connector Installation	RT	4.00	0.00	75.00	113.00	
	152396	02/08/10	Pipe 1227	Line Flush	RT	4.00	0.00	75.00	96.00	
	173157	02/05/10	Pipe 161	Connector Inspection	RT	4.00	0.00	75.00	164.63	
	152383	02/05/10	Pipe 1215	TV Line	RT	4.00	0.00	75.00	212.99	J
Ο.	<u>Custom</u>	O Month-	to-Date C Quarter-to-Date		fe-to-D	ate	N	1ap	17,681.86	

Data grids with starred column headings

You will notice that some data grids possess a column heading with a trailing asterisk (*). This is indicative of the fact that the cells in that column contain an embedded drop list from which a value can be chosen. The drop list's down arrow only appears when the cell is entered.

			uliu view		
Year	Pavement Assessment / Road Condition *	Quality Index	Weight		
2002	Longitudinal Cracking	9	1		
2002	Edge Cracking	9	1		
2002	Horizontal Cracking	8	1		
2002	Alligator Fatigue	8	1		
	2002 2002 2002	2002 Longitudinal Cracking 2002 Edge Cracking 2002 Horizontal Cracking	2002 Longitudinal Cracking 9 2002 Edge Cracking ✓ 9 2002 Horizontal Cracking 8		

Date Fields

PubWorks provides a number of date fields that possess special behavior to make the entry of dates as easy as possible.

- Straight Entry dates may be entered in either MM/DD/YY or MM/DD/YYYY formats, which ever you prefer. *PubWorks* will automatically convert dates to MM/DD/YYYY format
- Special Keys enter the letter **T** for today, **Y** for yesterday and **M** for tomorrow (manana).
- Up/Down Buttons each date field has an up/down button to its right making moving forward and backward in time easier.
- Up/Down Keys the keyboards up/down arrow keys and plus/minus keys provide the same functionality as the up/down button.
- Calendar if you double click the date field, a calendar will pop up allowing you to select a date from the calendar.

Drop Lists

Drops lists make use of data from the various *PubWorks* category data tables. Drop lists are used to better define certain data with standard values (like assigning a department value to an employee) or for report data selection and filtering.





Drop lists generally display data in name order and have the name in the first column and the corresponding code in the second column.

At times, drop lists also appear in pairs allowing an entry by code in one or an entry by name in the other. Once a value is selected or entered in one of the paired drop lists, *PubWorks* will synchronize that selection with the corresponding value in the other drop list.

Since drop lists will never possess blank entries it might seem impossible to clear the drop list. All drop lists can be cleared by double clicking them

Field Shading/Required Fields – on most *PubWorks* screens, fields that have a yellow background are the required fields; fields with a white background are optional. If you wish to save a record, please be certain you've keyed valid data into the yellow (required) fields.



Read Only Fields – *PubWorks* uses blue "ink" to color read-only fields. The values in these blue fields are auto-filled or auto-calculated by the software.

Cost Summary						
Cost Julillary	MTD	QTD	YTD	LTD		
Total Cost (\$)	3,973.44	5,264.04	7,486.46	78,177.57		
\$/Length (miles)	2,657.64	3,520.86	5,007.33	52,289.19		

Radio Buttons – a set of open circles accompanied by text labels. Only one of the radio buttons in a set can be selected; once one is selected all others in the set all unselected. Radio buttons are used for the selection of mutually exclusive options.

Record Deletes - PubWorks always "are you sure?" when you attempt to delete a record.

Referential Integrity

To prevent holes from being created in the database, prior to any record delete request, *PubWorks* will be sure that record chosen for deletion is not in use. If the record is not in use, *PubWorks* will delete it, other wise it will make the record inactive. Inactive records will be prevented from appearing in drop lists in other *PubWorks* windows.

Required Fields – on most *PubWorks* screens, fields that have a yellow background are the required fields; fields with a white background are optional. If you wish to save a record, please be certain you've keyed valid data into the yellow (required) fields. See image above.

Status Bar

Most major screen in PubWorks possess a status bar on their lower edge displaying record count, recode code and name and active status. This information remains constant as you click through the various tabs the screen possesses and is meant to help maintain viewing context.

Tab Order

The tab order refers to the order in which the cursor will appear in a set of fields in a window with each successive press of the tab key. Tab orders are established to be straightforward and as one would expect. They are especially important on the Daily Activity screen and they are the basis for fast and accurate data entry. See the User Powers / Daily Activity tab / Tab-to settings for more information.

Tabs

PubWorks makes extensive use of display tabs to display a maximum of data and information with minimal clutter.

Tool Tips

When the mouse pointer is left over a button, a text box, a drop list, etc, a small, ballooned caption will appear after three seconds with a brief description of the control in question.



Menu Guide

System (displayed as if logged in user has Admin powers).

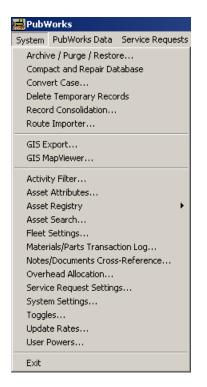
The first tier of menu options, **Archive/ Purge / Restore** through **Route Importer** are covered in the section titled **Database Maintenance Functions** on page 94.

The GIS tier is briefly covered in section **GIS Interface** on page 96 but is covered in more depth in the *PubWorks* MapViewer Guide.

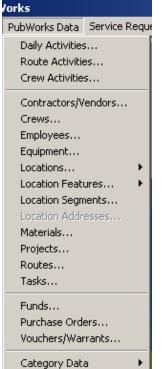
The third tier is covered as follows:

- Activity Filter on page 79.
- Asset Attributes on page 81.
- Asset Registry on page 82.
- Asset Search on page 83.
- Material Transaction Log on page 85.
- Notes/Documents Cross Reference on page 86.
- Overhead Allocation on page 87.
- System Settings on page 88.
- Updating Rates on page 90.
- User Powers on page 91.

Use the Exit menu item to close the PubWorks program on your PC.



PubWorks Data



Here's where you access the core data that drive *PubWorks*. From these menu items, you'll gain access to screen (described below) that allow you to add, modify and delete all of you *PubWorks* data.

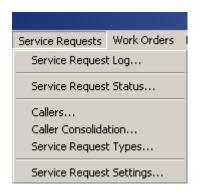
- Activities (all three types listed first because they are likely to be used most often) are covered on page 65.
- Contractors/Vendors on page 10.
- Crews on page 12.
- Employees on page 15.
- Equipment on page 18.
- Locations on page 22.
- Location Features on page 29.
- Location Segments on page 33.
- Location Addresses will be covered in an upcoming version of this training guide.
- Materials on page 35.
- Projects on page 39.
- Routes on page 43.
- Tasks on page 46.
- Funds on page 48.
- Purchase Orders on page 51.
- Vouchers/Warrants on page 56.
- Category Data on page 8.



Service Requests

Service Request is an optional or add-on module and it is covered I this guide. This menu is the gateway the primary functions of the Service Request module.

- Service Request Log on page 58.
- Service Request Status on page 61.
- **Callers** on page 62.
- Caller Consolidation on page 63.
- Service Request Types on page 63.
- Service Request Settings on page 64.



Work Orders

Work Orders is an optional or add-on module and is note covered I this guide. Please see the *PubWorks* Work Order Training Guide.

Fleet

Fleet Maintenance is an optional or add-on module and is note covered I this guide. Please see the **PubWorks Fleet Training Guide**.

Reports

PubWorks comes standard with over 350 ready-to-run reports. It is difficult, in the space provided here to describe every report in the system. The best way to learn about reports is to explore, be curious and run reports. They are easy to learn and understand and organized along the same lines as the *PubWorks* data. See page 76 through 78.

Windows

This is a MS Windows standard menu item. When you click on it, it will display a list of all windows that have been open with in the *PubWorks* application.

Help

Clicking the help menu will allow to view the **About** *PubWorks* screen on which you can view version information and send an email to PubWorks support. See page 97.





Category Data

There are 20 types of category data tables. Each consists of a list of user-defined, standard values that help describe more complex data entities (like employees, equipment and locations) in your *PubWorks* database.

One way to explain the role of category data is as follows: Say you wanted to record information about people in your town and one of the pieces of data you wish to record is eye color. One way to do this is to allow users to key in what ever they wish for eye color. A more structured technique requires the users to define a list of eye colors and then provide a way for a one of the pre-defined eye colors to be selected. The first method, although simple, creates problems due to misspellings and other inconsistencies (hazel versus hazle). The second method assures consistent standard data — only one instance of hazel — and enhanced reporting power.



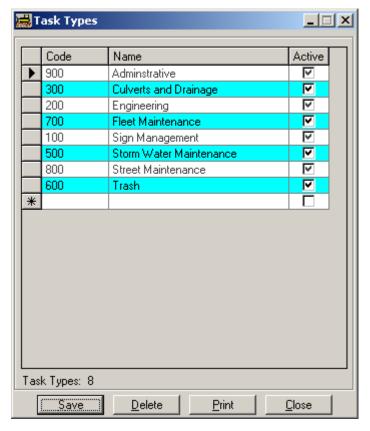
A particular category data table consists of three columns:

- A unique eight character alpha-numeric code
- A unique 64 character alpha-numeric name
- An active check box

The window in which category tables are displayed is simple but has some very useful features:

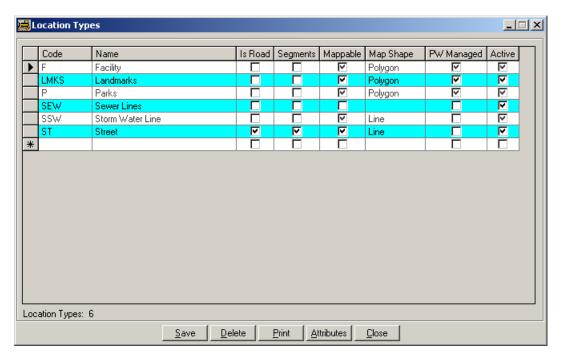
- Add new: simply type new entries for the table in the code and name cells just to the right of the eight-point asterisk (the active check box will be turned on automatically)
- Modify: type directly into the cell whose value you wish to modify
- Delete: click the square gray button just to the left of the row you wish to delete, then click the Delete button or hit the keyboard's delete key.
- Save: when a row is added or modified, the left button will display a small pencil – this means that the row is being updated. By moving to a different row or closing the window the data you have added or changed is automatically saved – clicking the Save button has the same effect.
- Sorting: by default, data in category tables is displayed in name order. Click on the blue-and-white grid's column heading to change the sort order.





- Uniqueness: the code and name values must be unique for the particular category data table. *PubWorks* will enforce this uniqueness automatically.
- Active: you can render records inactive if you wish. Inactive records will be prevented from appearing in drop lists in other PubWorks windows.
- Printing: click the Print button to display category data list report options.

• Exceptions: a handful of data table have more than the three traditional columns (code, name and active). The exceptions are: Labor Types (possesses a pay rate multiplier column); Location Types (segments column); Pavement Types (sub-base, base-course and pavement columns).



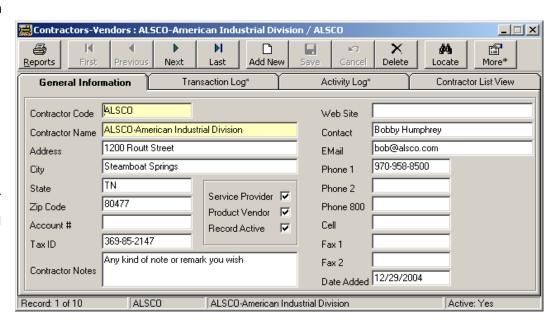


Contractors/Vendors

Often times, various contractors may provide services for your department. This module will help you manage contractors and vendors so that you can include them in the activity recording process.

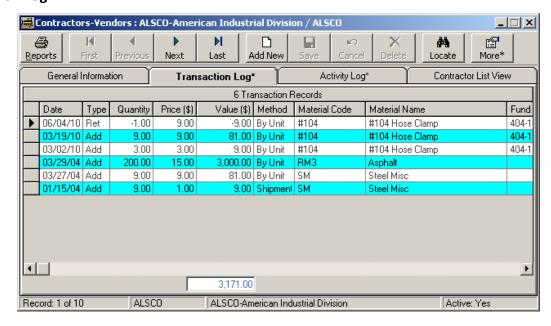
General Information

- Contact information (8 character code, 64 character name).
- Transaction Log, Activity Log and List View tabs.
- Status bar with record count and context information.
- Service Provider and Product Vendor check boxes allow you define the role played by each contractor.



Contractor Transaction Log

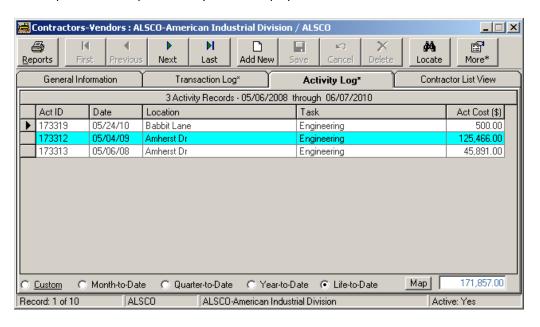
- All material inventory transactions associated with the displayed contractor.
- Tab caption will possess an asterisk (*) when one or more records are present.
- Column-Click Sorting and Double Click transaction edit.





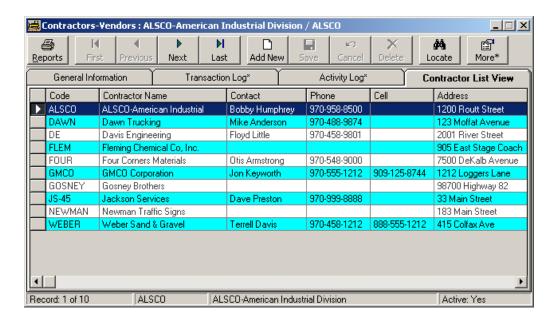
Contractor Activity Log

- A PubWorks data grid with Column-Click Sorting and Double-Click activity record locate.
- Tab caption will possess an asterisk (*) when one or more records are present.
- Radio-button-filtering (custom, month, quarter, year and life to date) with Activity Cost Summary.
- Grid caption displays date range and count of records present in the grid.
- Map button to map the activity records displayed.



Contractor List View

- All contractors listed together.
- Column-Click Sorting.
- Double-Click Contractor locate.



PubWorks Training Guide 11 6/10/2010

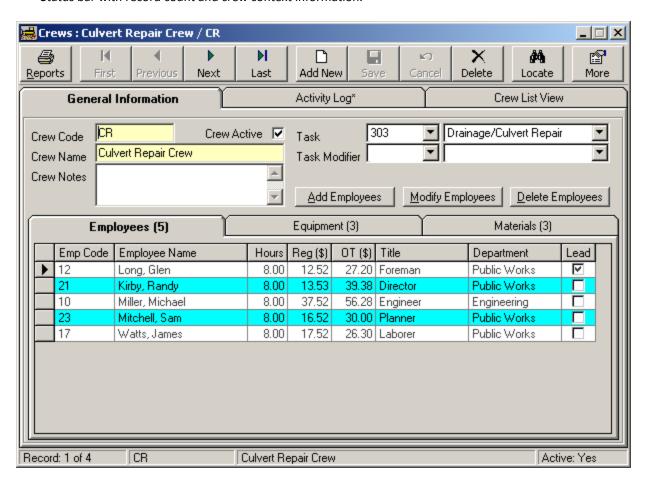


Crews

Crews give you the opportunity to create, in one place, a set of resources to be used on a job. The crew is not just a group of employees that work together but also the equipment and materials they use. Creating a crew allows you to later insert that crew on the Crew Activity screen and with one mouse-click; all of the crew's resources will be applied to the Crew Activity greatly expediting the data entry process

General Information

- Crew identifier (8 character code, 64 character name) plus a 255 character notes field.
- Default task and task modifier for the crew.
- Add, Modify, Delete buttons the ease the process of adding employees, equipment and materials to the crew.
- Three-tab resource sub-screen to keep the crew's employees, equipment and materials well organized.
- Status bar with record count and crew context information.



Resource Tabs

As you click on the resource tabs for Employees, Equipment or Materials, the resource modification buttons take on captions that are appropriate to the most recently clicked tab. Also, the tab captions will display the number of particular resources present giving you, in a glance, information about how extensive the crew is.

Lead Employee

When the crew is used for a crew activity, *PubWorks* must decide how to allocate the crew's equipment and materials. *PubWorks* will use the Lead Employee and assign all equipment and materials used to that employee. When establishing a crew, *PubWorks* will require that you designate a single, lead employee for the crew.

Using Crews



When the crew is used for a crew activity, you will be able add and remove resources and change anything else about the crew. The established crew is designed to be a default starting point for work performed by a group of employees. Changes you might make to an established crew on the Crew Activity screen do not get pushed back into the original crew record.

Adding/Modifying Crew Resources – click on the resource tab of interest (Employees, Equipment or Materials) and then click the Add or Modify button. The screen below will appear allowing you add/modify the appropriate resource. If you clicked Add, this screen will initially be blank. If you clicked Modify, it will be filled in with the values present in the selected grid row.

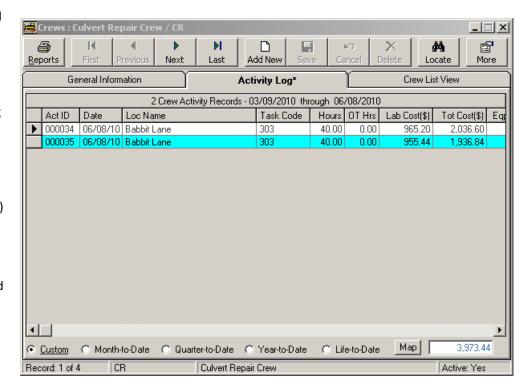


Once you are satisfied with the resource values selected/entered, click the OK button to save this crew resource. Clicking Cancel will close the screen leaving the crew unaffected.

Deleting Crew Resources – click on the resource tab of interest (Employees, Equipment or Materials) and then click on the grid line item you wish to delete. Now click the Delete button. *PubWorks* will ask you if you are certain you wish to the delete the selected record. Answering Yes will delete the record, answering No will cancel the delete request. Be careful, there is no undelete.

Crew Activity Log

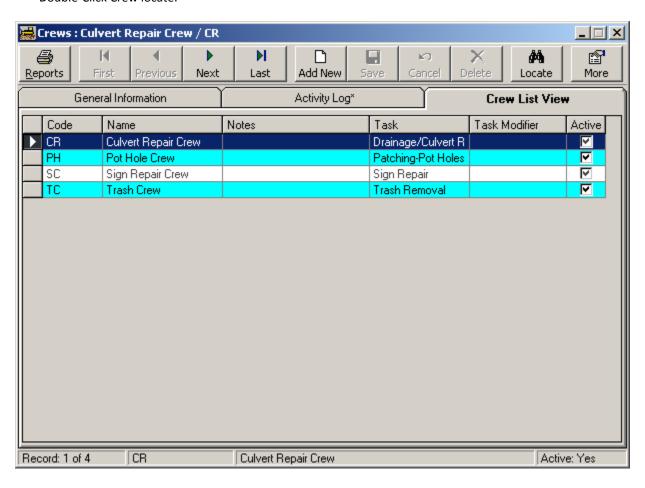
- A PubWorks data grid with Column-Click Sorting and Double-Click activity record locate.
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Tab caption will possess an asterisk (*) when one or more records are present.
- Grid caption displays date range and record count and an Activity cost summary.
- Map button to map the activity records displayed.





Crew List View

- All crews listed together.
- Column-Click Sorting.
- Double-Click Crew locate.



PubWorks Training Guide 14 6/10/2010

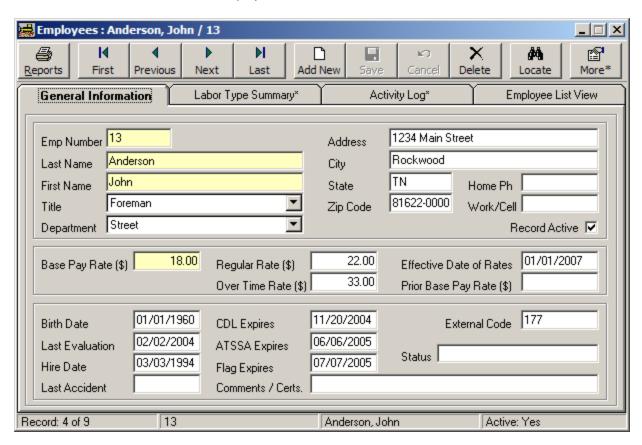


Employees

This module manages contact, pay rate and date sensitive information for each of your employees.

General Information

- Contact information (8 character code, non unique names supported)
- Categorization of employees by Title and Department.
- Pay rates
- Relevant dates (these date labels can be customized on the System Settings screen).
- Labor Type Summary, Activity Log and List View tabs.
- Status bar with record count and employee context information.



Employee Pay Rates

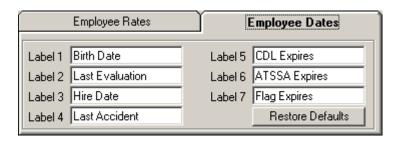
- Base Pay this represents what an employee sees in his/her paycheck.
- Regular Rate this represents that rate of cost of having the employee performing work. It can be a loaded
 rate taking into account the cost of benefits and other overhead factors. The cost of overhead can be built
 directly into employee pay rate or it can be allocated explicitly across activities at the end of month or year.
 - See the system setting screen for more information on employee pay rate load factors. Separately, overhead can be more generally applied see the section on overhead allocation below.
- Over Time Rate represent the cost of the employee when overtime hours are worked.



Employee Dates

PubWorks has a series of employee date reports that help answer questions like "whose birthday occurs this week?" or "whose CDL expires this month?" or "whose evaluation is due next week?"

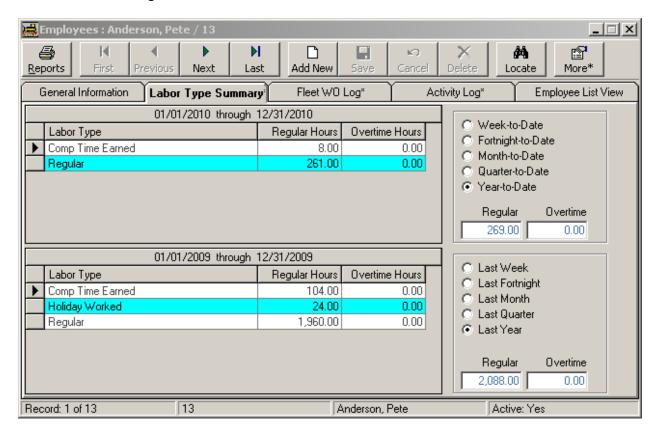
The seven date fields listed can have their labels customized so you can track any date you wish.



See the General Settings tab of the System Settings screen, page 88.

Employee Labor Type Summary

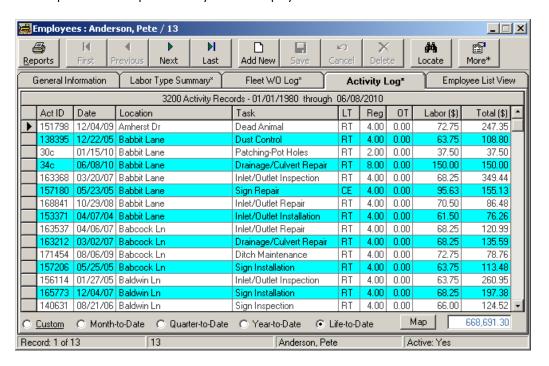
- Radio-button-filtering provides a means for comparing a current period of time to a prior period of time.
- Tab caption will possess an asterisk (*) when one or more records are present.
- Column-Click Sorting.





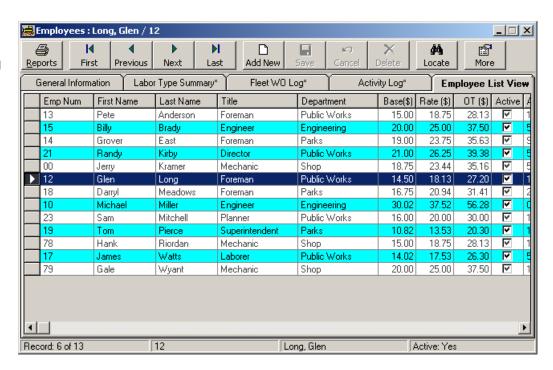
Employee Activity Log

- PubWorks data grid with Column-Click Sorting and Double-Click Activity record locate.
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Tab caption will possess an asterisk (*) when one or more records are present.
- Grid caption displays date range and record count and activity cost summary appears below the grid.
- Map button to map the activity records displayed.



Employee List View

- All employees listed together.
- Column-Click Sorting.
- Double-Click
 Employee locate.

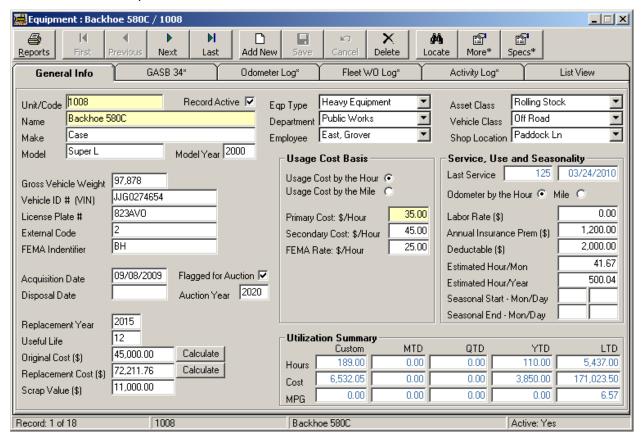




Equipment

Describe each piece of equipment in your operation in terms of make and model, equipment type and department categorization, cost rates, model year and replacement year.

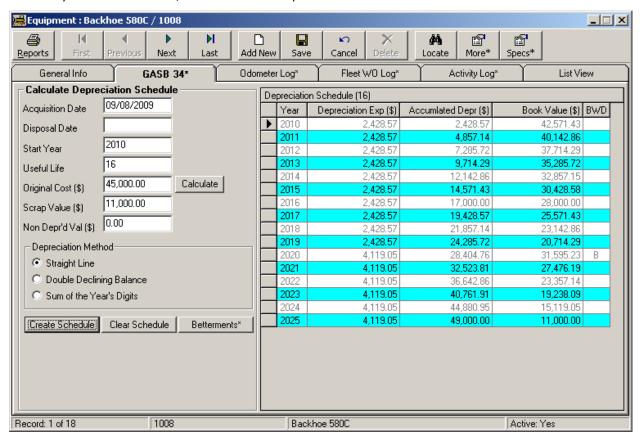
- General descriptive information (16 character code, 64 character name)
- Make, Model and Model Year
- Categorizations equipment by Type, Department, Asset Class and Vehicle Class
- Cost rates (primary, secondary and FEMA) and cost basis (hour or mile)
- Identification and attribute fields
- Acquisition and Disposal dates
- Depreciation parameters
- Utilization summary with MPG





Equipment Depreciation Schedule

- Parameter values (repeated/synched from the General Information tab).
- Depreciation method radio buttons for method selection plus Calculate and Clear buttons.
- Ability to add Betterments, Writedowns and Disposals.

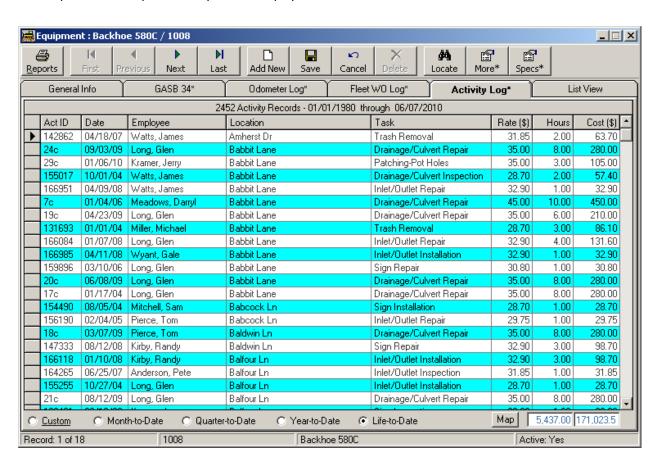


PubWorks Training Guide 19 6/10/2010



Equipment Activity Log

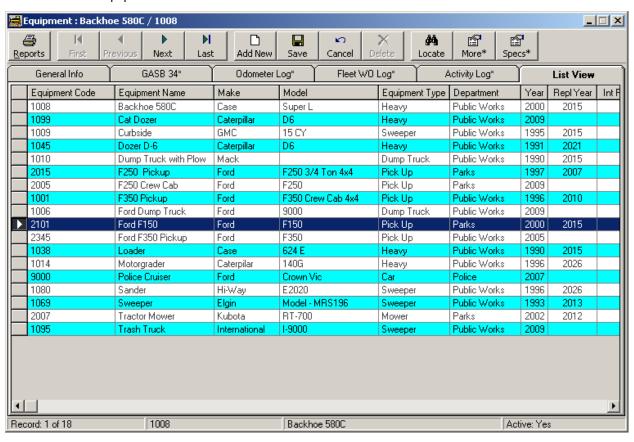
- Column-Click Sorting and Double-Click Activity record locate.
- Radio-button-filtering (custom, month, quarter, year and life to date) and Activity cost summary.
- Grid caption displays date range and record count.
- Tab caption will possess an asterisk (*) when one or more records are present.
- Map button to map the activity records displayed.





Equipment List View

- All equipment listed together.
- Column-Click Sorting.
- Double-Click Equipment locate.



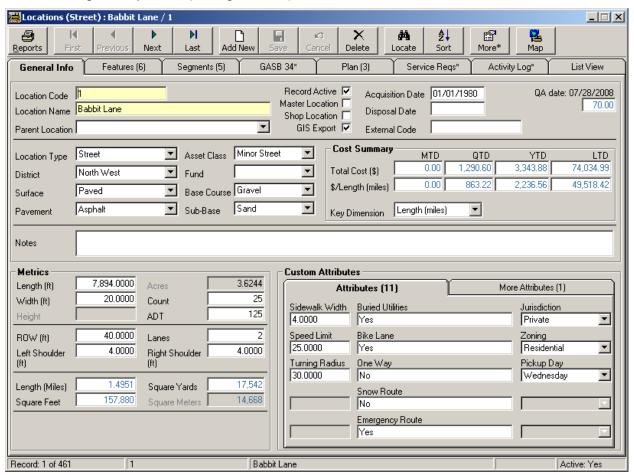
PubWorks Training Guide 21 6/10/2010



Locations

Locations are the places employees (and contractors) perform work Location can possess dimensional data (length, width, square yards and acres) and can be categorized by type, district, asset class, pavement and surface. A location can be designated as a master location or as a segment that is part of a master location. A depreciation schedule and a pavement quality index can be calculated for any location – powerful tools supporting GASB 34.

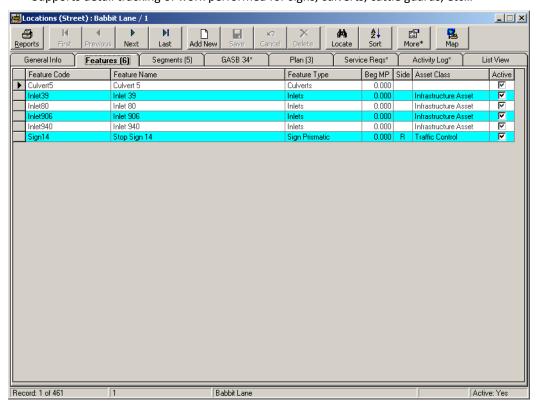
- Descriptive information (16 character code, 64 character name).
- Categorization by Type, District, Surface, Pavement, Asset Class, Fund, Base Course and Sub-Base.
- Acquisition and Disposal dates
- Cost summary with custom "key dimension" and unit cost based on this key dimension.
- Dimensional information to help support unit cost accounting and GIS export.
- 30 custom attribute fields (10 for number, 10 for text and 10 for list values)
- Asset Hierarchy (see Features tab).
- Master/Segment capabilities (see Segments tab).





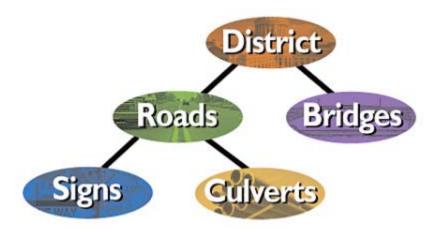
Location Features Tab

- Tab caption possesses the number of associated features in parenthesis.
- Represent the feature details of the location part of the asset hierarchy
- Column-Click sorting and Double-Click Location Feature locate.
- Supports detail tracking of work performed for signs, culverts, cattle guards, etc...



PubWorks is designed to allow you to represent your asset hierarchy and the relationship among assets.

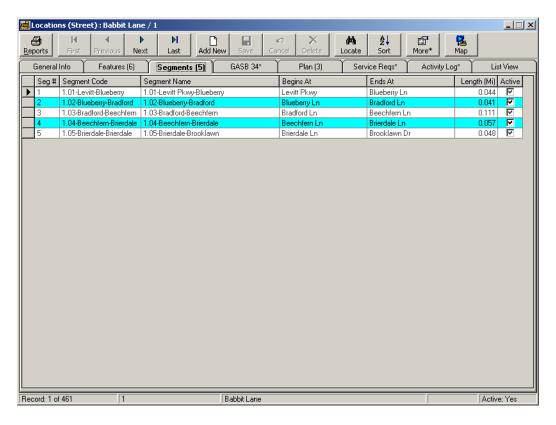
The Features and Segments tab explicitly list the (sub) assets that are related to the parent asset. Above the location asset record (a street named "Babbit Lane") possesses six features and is broken into five street segments.





Location Segments Tab

- Tab caption possesses the number of segments in parenthesis.
- Represent how is divided into specific segments.
- Column-Click sorting and Double-Click Location Feature locate.
- Supports detail tracking of work performed for any specific segment.



PubWorks Training Guide 24 6/10/2010



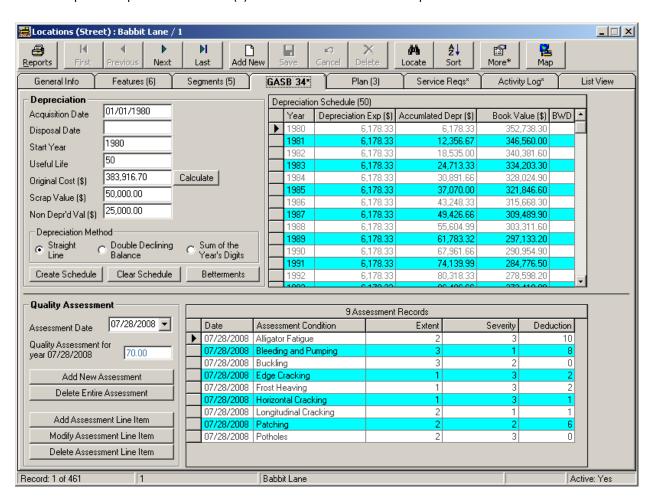
Location GASB34

Location Depreciation schedule

- Parameter values (repeated from the General Information tab).
- Depreciation method radio buttons for method selection.
- To calculate the original cost of procurement; double click the Original Cost field.
- Calculate and Clear buttons to manipulate the depreciation schedule.
- Tab caption will possess an asterisk (*) when a depreciation schedule is present.
- Ability to add Betterments, Writedowns and Disposals.

Pavement Quality Index

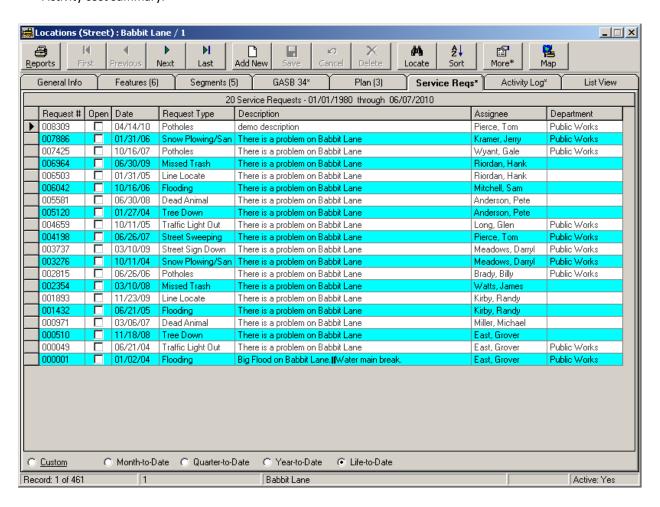
- Add quality assessments for any year you wish.
- Make use of user defined condition values and calculation.
- Tab caption will possess an asterisk (*) when one or more records are present.





Location Service Request Log

- Column-Click Sorting.
- Double-Click Service Request locate.
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Tab caption will possess an asterisk (*) when one or more records are present.
- Grid caption displays date range and record count.
- Activity cost summary.

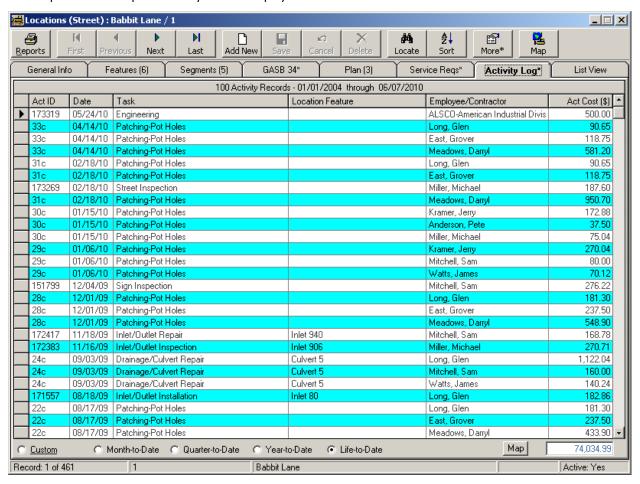


PubWorks Training Guide 26 6/10/2010



Location Activity Log

- Column-Click Sorting.
- Double-Click Activity record locate.
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Tab caption will possess an asterisk (*) when one or more records are present.
- Grid caption displays date range and record count.
- Activity cost summary.
- Map button to map the activity records displayed.





Locations List View

- All locations listed together.
- Column-Click Sorting.
- Double-Click Location locate.

eports	I√ √ First Previous	it Lane / :	▶I Last	Add Nev	Sav		k¹) ancel	X Delete	_	A cate	À ↓ Sort	Mor		₽ Map		
General Ir	nfo Feature	s (6)	Segments	(5)	GASB	34*		Plan (3)	\supset	Ser	vice Reqs*		Activity	Log*	Lis	st View
Location	n Code Loca	tion Name				Location	п Туре	District	t		Surface	F	avem	ent	Active	Master
1	Babb	it Lane				Street		North \	West		Paved	Α	sphalt		V	
2	Babo	ock Ln				Street		North \	West		Paved	Δ	\sphalt		▽	
3	Balde	vin Ln				Street		North \	West		Paved	Δ	Asphalt		V	
4	Balfo	ur Ln				Street		North \	West		Paved	0	Concre	te	~	
5	Balla	d Ln				Street		North \	West		Paved	Δ	Asphalt		V	
6	Band	roft Ln				Street		North \	West		Paved	Δ	\sphalt		✓	
7	Bark					Street		North \			Paved	Δ	Asphalt		V	
8	Barn	well Dr				Street		North \	West		Paved	0	Chip Se	al	✓	
9	Barrir	ngton En				Street		North \	West		Paved	Δ	Asphalt		V	
10	Bartle					Street		North \			Paved		\sphalt		✓	
11	Bayb	erry Ln				Street		North \	West		Paved	Δ	Asphalt		V	
12		erdale Ln				Street		North \	West		Paved	0	Concret	te	✓	
13	Beed	hfern Ln				Street		North \	West		Paved	Δ	Asphalt		V	
14	Beed	hnut Ln				Street		South I	East		Paved	Δ	\sphalt		✓	
15	Belhi	ırst Ln				Street		North \	West		Paved	Δ	Asphalt		굣	
16	Belm	ont Ln				Street		North \	West		Paved	0	Chip Se	al	✓	
17	Bend	ix Ln				Street		North \	West		Paved	Δ	Asphalt		V	
18	Bent	y Ln				Street		North \	West		Paved	Δ	\sphalt		✓	
19	Berk:	shire Ln				Street		North \	West		Paved	Δ	Asphalt		V	
20	Berm	uda Cir				Street		North \	West		Paved	0	Concret	te	✓	
21	Beve	rly Rancoc	as Rd			Street		South 1	West		Paved	Δ	Asphalt		V	
22	Birch	wood Ln				Street		North \	West		Paved	Δ	\sphalt		✓	
23	Birds	eye Ln				Street		North \	West		Paved	Δ	Asphalt		V	
24	Black	well Ln				Street		North \	West		Paved	C	Chip Se	al	✓	
25	Bloor	nfield Ln				Street		North \	West		Paved	Δ	Asphalt		V	
26		erry Ln				Street		North \			Paved		\sphalt		✓	
27	Bolto					Street		North \			Paved	Δ	Asphalt		V	
28	Bonn					Street		North \			Paved		Concre		▽	
29	Bosv	orth Ln				Street		North \	West		Paved	Δ	Asphalt		V	
100		-0'				l		1								



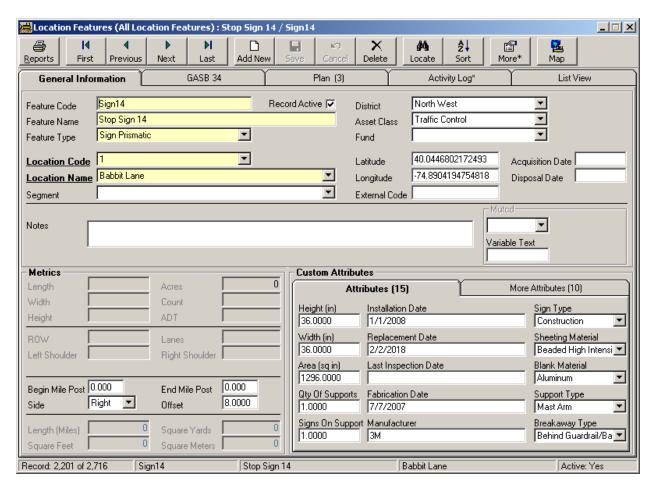
Location Features

Locations Features are the things that exist at or are possessed by a Location. For example, the location Lake Hatcher Park might possess a Club House building. When work is performed at the park, it might be more specifically performed at the park's Club House.

Location features can be defined to represent virtually anything that exists at a location thus enabling you to easily track work performed in a highly detained and useful fashion.

Places employees (and contractors) perform work Location can possess dimensional data (length, width, square yards and acres) and can be categorized by type, district, asset class, pavement and surface. A location can be designated as a master location or as a segment that is part of a master location. A depreciation schedule and a pavement quality index can be calculated for any location – powerful tools supporting GASB 34.

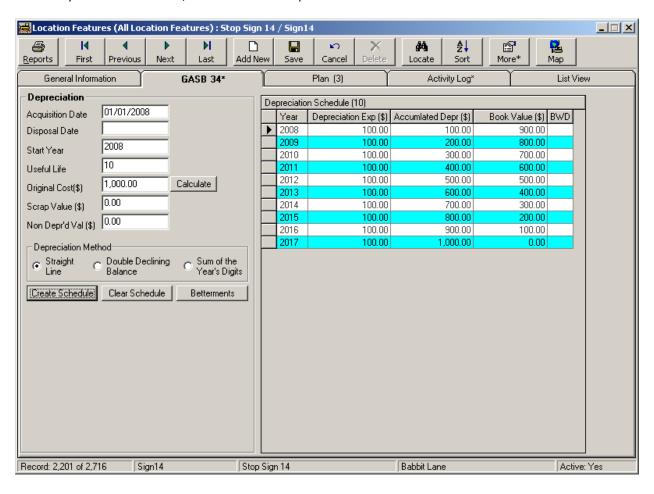
- Descriptive information (16 character code, 64 character name).
- Dimensional information to help support unit cost accounting and GIS export.
- Parent Location drop lists.
- Categorization by Type, Fund and Asset Class.
- Ten user-defined numeric fields and ten user defined text fields.





Location Features Depreciation schedule

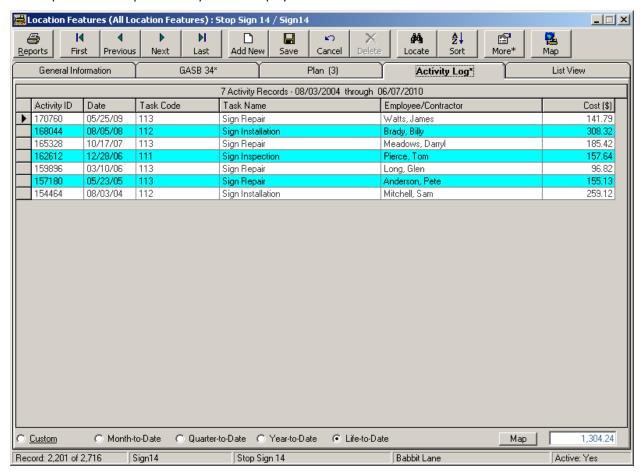
- Parameter values and depreciation method radio buttons for method selection plus Calculate and Clear buttons.
- To calculate the original cost of procurement; double click the Original Cost field.
- Tab caption will possess an asterisk (*) when a depreciation schedule is present.
- Ability to add Betterments, Writedowns and Disposals.





Location Features Activity Log

- Column-Click Sorting and Double-Click Activity record locate.
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Tab caption will possess an asterisk (*) when one or more records are present.
- Grid caption displays date range and record count and Activity cost summary.
- Map button to map the activity records displayed.

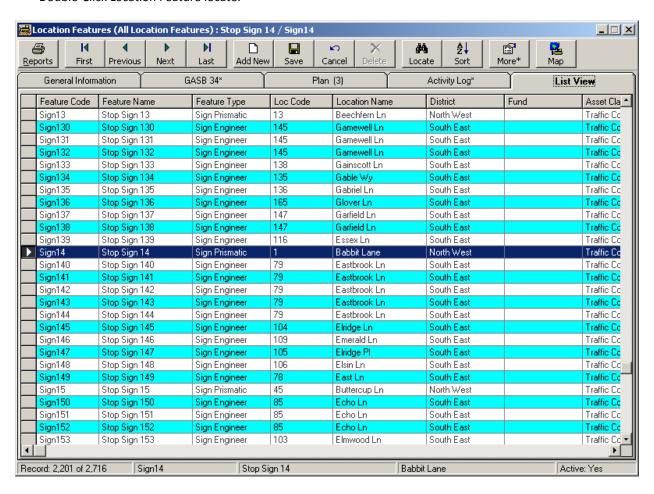


PubWorks Training Guide 31 6/10/2010



Locations Features List View

- All location features listed together.
- Column-Click Sorting.
- Double-Click Location Feature locate.

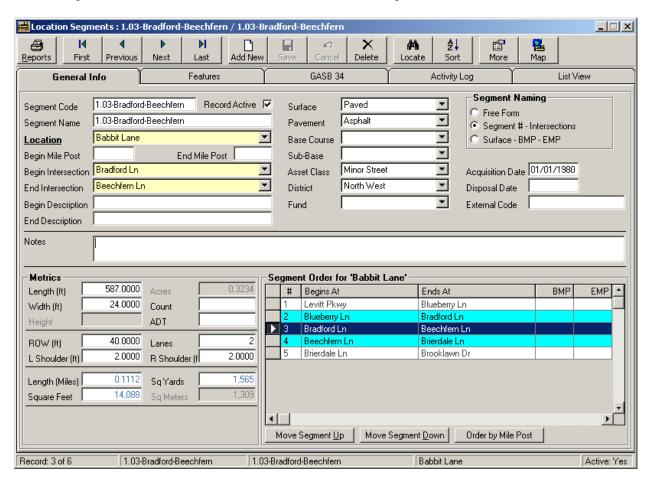




Location Segments

Like locations and location features, Location Segments make use of the same multi-tab screen to allow you to define the segments that exist on some of your road-ways.

To activate Location Segments, you must first define one or more location types (via the category data menu) and set their Segments check to on/true. Once this is done the Location Segments menu will be enabled.



The location segments screen is essential identical to the Locations screen except for a few significant differences:

- Segment Code and Naming Convention a set or radio button on the right-had side of the screen allows you
 to set the naming convention mode.
 - o Free Form allows you to type whatever you wish for code and name values.
 - Segment Number/Intersections code and name will be automatically constructed concatenating the follow: parent location code + hyphen + segment number + hyphen + begin intersection + hyphen + end intersection.
 - o **Surface BMP-EMP** code and name will be automatically constructed concatenating the follow: parent location code + hyphen + surface code + hyphen + BMP + hyphen + EMP.
 - Pavement BMP- EMP code and name will be automatically constructed concatenating the follow:
 parent location code + hyphen + pavement code + hyphen + BMP + hyphen + EMP.
- Parent Location select from a list of potential parent locations; locations whose location type has segments enabled.
- **Begin/End Mile Posts** enter the mile markers for the segments begin and end.



- **Begin/End Intersection** select the two roads whose intersection defines the segment.
- **Begin/End Description** key in text that is helpful in describing the nature of the segment's begin and end points (if necessary).
- **Segment Order Grid** displays where the displayed segment is situated with respect to other segments possessed by the parent location.

The rest of the screen's functionality is exactly the same as the functionality of the Locations screen; please refer to it for details.

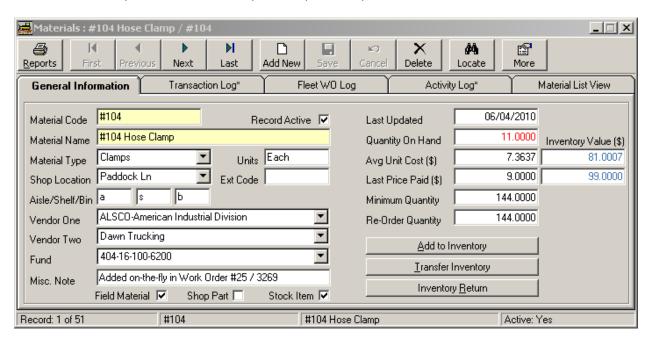
PubWorks Training Guide 34 6/10/2010



Materials

This module handles your material inventory. Each material can be categorized by material type, shop location, vendor information and fund. Values describing minimum and maximum inventory quantities can be entered to aid in the re-order process. Inventory additions are easy and straightforward and inventory reductions are made automatically through the activity recording process.

- General descriptive information (16 character code, 64 character name) plus units and miscellaneous notes.
- Records inventory summary and reorder information.
- Provides means to categorize equipment by Type and Shop Location.
- Provides means to assign Primary and Secondary Vendor.
- Categorize equipment by Type and Shop Location and Fund.
- Inventory pricing, cost, reorder and quantity information.
- Quantity on Hand will be displayed in red when its value is less than the Minimum Quantity value.
- Add to Inventory and Transfer Inventory buttons provide capabilities described below.



PubWorks will display the **Quantity on Hand** in red if its value is less than the value present in the **Minimum Quantity** field.

The value of the inventory item is calculated for you and it is based on the number current inventory quantities and costs.

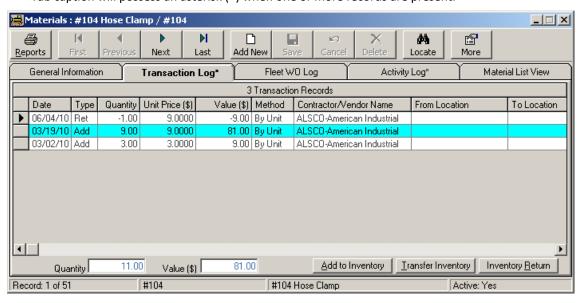
Adding, transferring and returning inventory items is done via the three button on the lower right-hand portion of the screen and is covered on page 36 below.

PubWorks Training Guide 35 6/10/2010



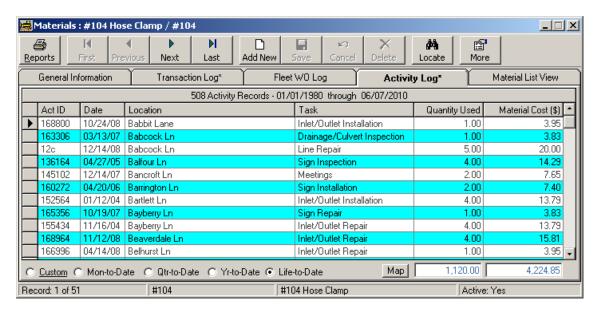
Material Transaction Log

- Column-Click Sorting.
- Double-Click to edit a material transaction.
- Grid caption displays record count.
- Tab caption will possess an asterisk (*) when one or more records are present.



Material Activity Log

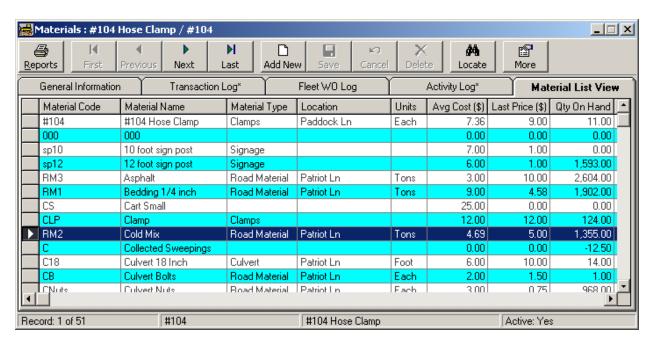
- Column-Click Sorting and Double-Click Activity record locate.
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Grid caption displays date range and record count.
- Tab caption will possess an asterisk (*) when one or more records are present and Activity cost summary.
- Map button to map the activity records displayed.





Material List View

- All materials listed together.
- Column-Click Sorting.
- Double-Click Material locate.



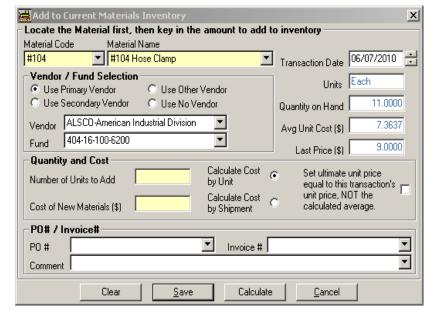


Material Adds, Transfers and Returns

Adds

Materials are automatically deducted from inventory with each activity record. Materials can be added back to inventory either by altering price and quantity data directory on the Materials window or through the window below.

Using the window below, you will create a Material Add transaction. This transaction will then appear in appropriate Material Transaction grids. Also, linking the Material Add to a Purchase Order will have an effect on the Purchase Order's indirect balance



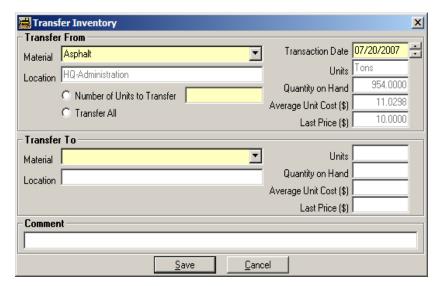
Returns

Use this screen to return an item in your inventory to the vendor that provided it. PubWorks will make the appropriate inventory quantity adjustments automatically. Just enter the item and the amount you are returning.

Transfers

Shops in your organization may possess different quantities of the same material. For better tracking, *PubWorks* can provide you with the means of transferring quantities of a material in one shop to another shop in your jurisdiction.

Using the Transfer Inventory window, you will create a Material Transfer transaction. This transaction will then appear in appropriate Material Transaction grids.



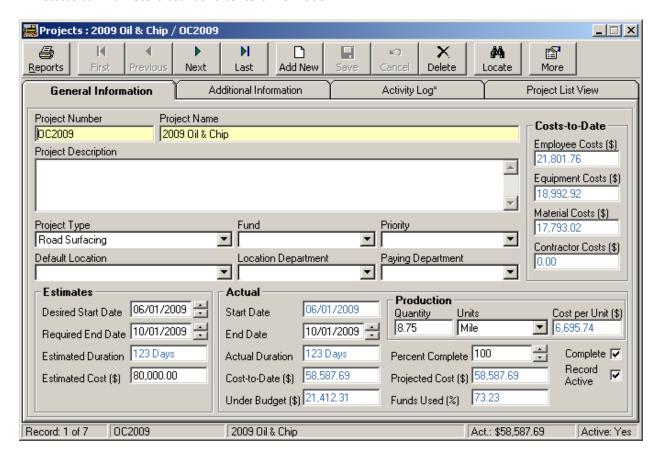


Projects

Describe the projects, special events, disasters or ongoing maintenance activities your department is servicing. Assign activities to the project as they occur (or after the fact) to accurately track progress and cost. This module can be used to bill external entities for services rendered.

General Information

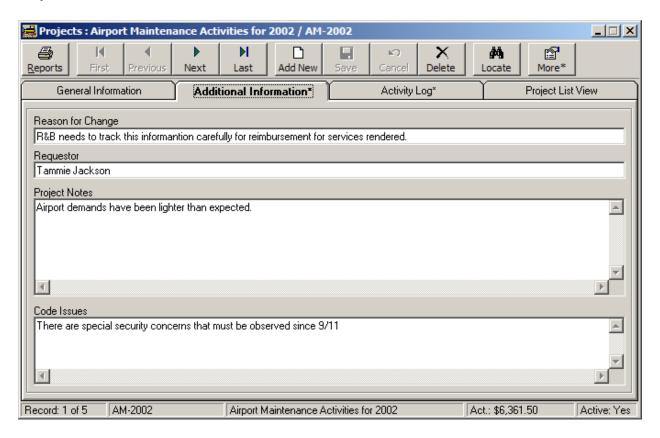
- General information (16 character code, 64 character name) and free-form description.
- Categorization by Department, Type, site Location, Priority and Fund.
- Additional information, activity log, List View tabs.
- Automatic tallies of cost-to-date for employees, equipment, materials and contractors.
- Estimate, actuals and projections.
- Project production units and cost per unit calculation.
- Additional and code issues can be entered on the Additional Information tab.
- Status bar with record count and context information.



Here, there are a whole host of auto-calculated figures (in blue "ink"). *PubWorks* is using the linked Activity records to make these calculations.



Project Additional Information



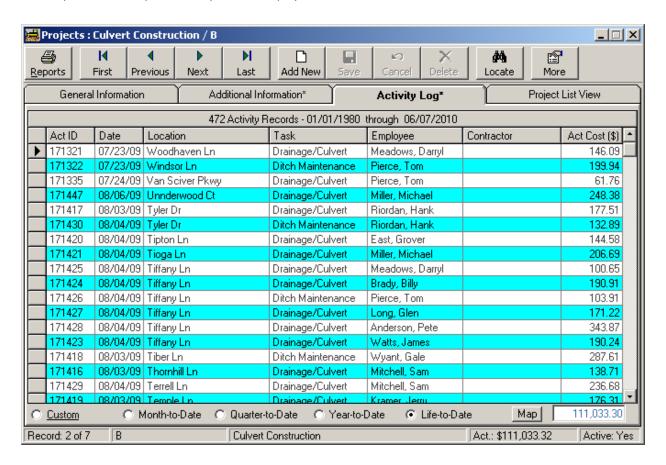
Use this tab to enter key supporting information about the project.

Remember: The More Button can be used to link documents and pictures to the project record – as many as you need.



Project Activity Log

- Column-Click Sorting and Double-Click Activity record locate.
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Grid caption displays date range and record count and Activity cost summary.
- Tab caption will possess an asterisk (*) when one or more records are present.
- Map button to map the activity records displayed.

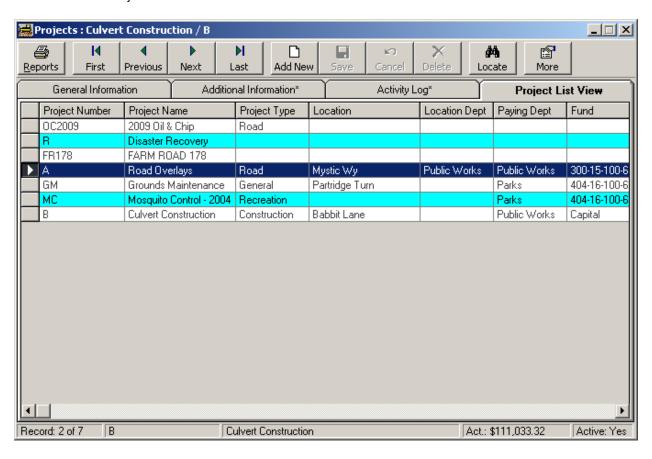


PubWorks Training Guide 41 6/10/2010



Project List View

- All projects listed together.
- Column-Click Sorting.
- Double-Click Project locate.

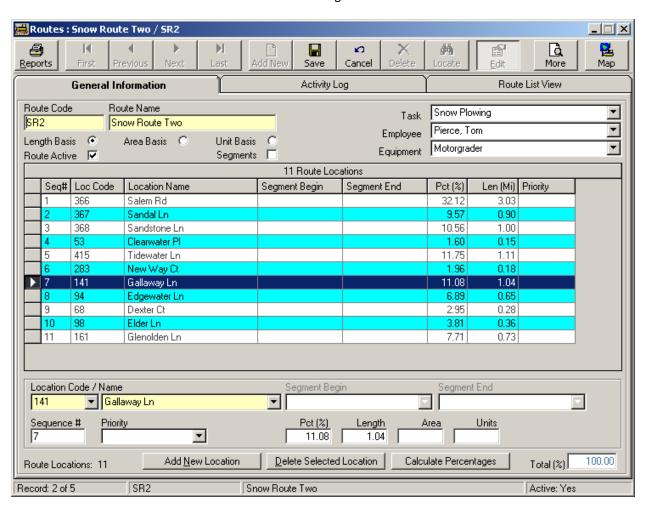




Routes

Routes consist of a series of locations where a single task is performed for all route locations. Total activity cost is allocated to each route location based on its contributing percentage. Contributing percentages can be determined automatically based on location dimensions or can be set manually.

- General descriptive information (8 character code, 64 character name).
- Optional default values for Task, Employee and Equipment.
- Percentage calculation basis selection (length, area or unit).
- Controls at the bottom of the screen give you the ability to select the locations for the route.
- An Edit button on the button bar to enable route editing.

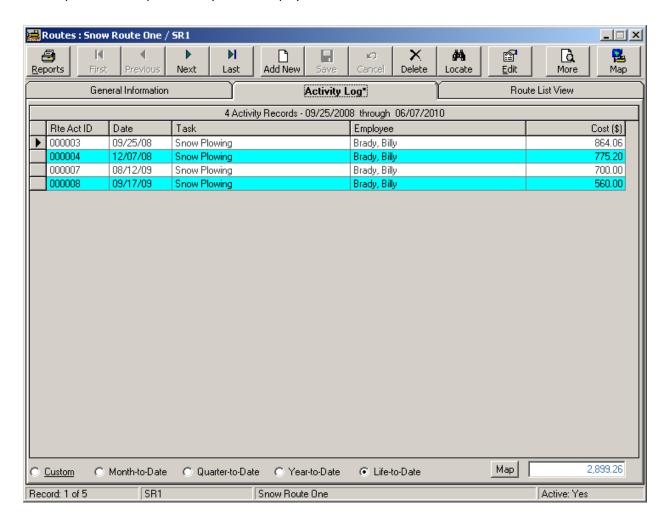


PubWorks Training Guide 43 6/10/2010



Routes Activity Log

- Column-Click Sorting and double click Route Activity record locate.
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Grid caption displays date range and record count.
- Tab caption will possess an asterisk (*) when one or more records are present.
- Activity cost summary.
- Map button to map the activity records displayed.

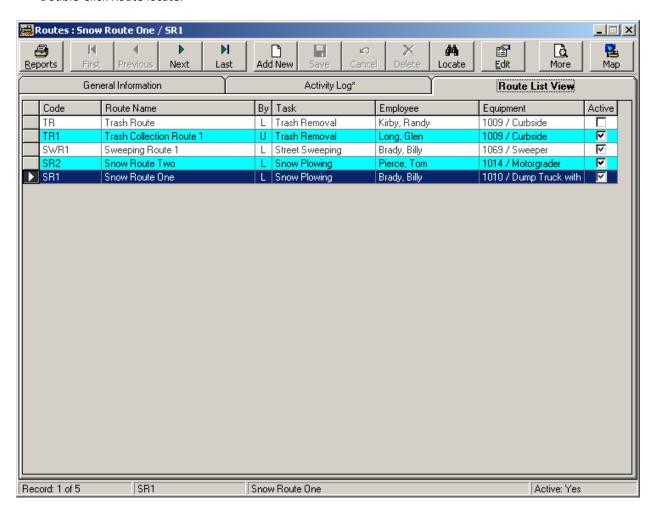


PubWorks Training Guide 44 6/10/2010



Routes List View

- All routes listed together.
- Column-Click Sorting.
- Double-Click Route locate.



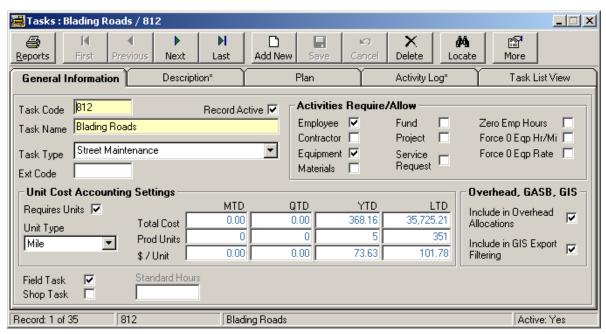


Tasks

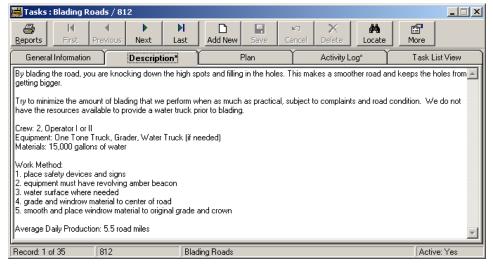
Tasks describe what employees do. Tasks can be categorized by task type and can optionally be associated with a unit type – this creates the ability for **PubWorks** to perform unit cost accounting. For example, the task *Snow Plowing* might be categorized as a *Winter Maintenance* task requiring *Miles* as its unit type; similarly, the task *Pot Hole Repair* of type *Street Maintenance* might require *Number Completed* as its unit type.

General Information

- Eight character code, 64 character name.
- Categorized by task type drop list.
- Requires Units and Unit Type drop lists enable unit cost accounting.
- Check boxes to field or shop distinction.
- Check boxes for the Activity data validation.
- Check boxes for Overhead Allocation, GIS export and GASB 34 reporting consideration.



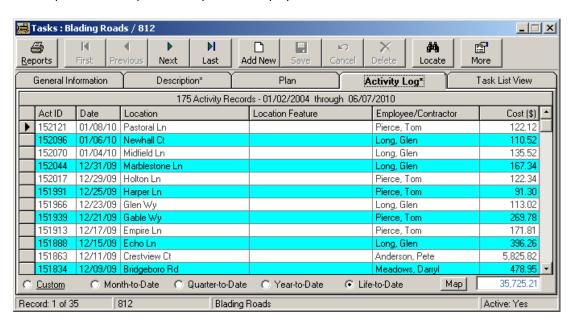
Here, there are a whole host of auto-calculated figures (in blue "ink"). *PubWorks* is using the linked Activity records to make these calculations.





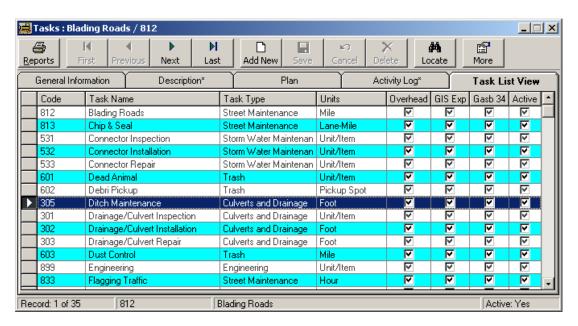
Tasks Activity Log

- Column-Click Sorting and Double-Click Activity record locate.
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Grid caption displays date range and record count.
- Tab caption will possess an asterisk (*) when one or more records are present.
- Activity cost summary.
- Map button to map the activity records displayed.



Tasks List View

- All tasks listed together.
- Column-Click Sorting.
- Double-Click Task locate.



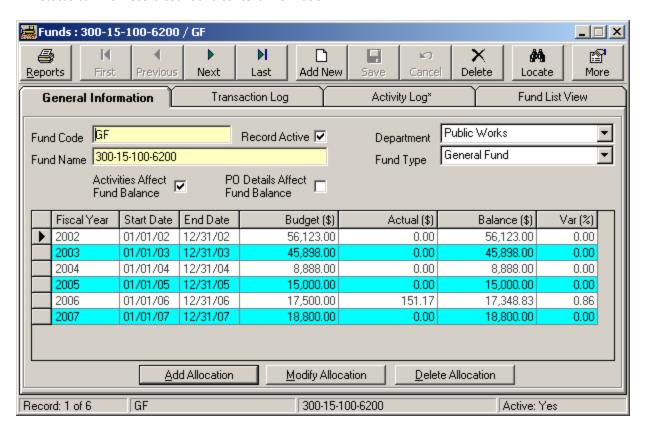


Funds

Funds, in *PubWorks*, are used to provide another level of information organization and report summarization. Funds can be used to closely tie with your department's budget line-items and you can create annual allocations in order to perform variance analysis.

General Information

- General information (16 character code, 64 character name).
- Categorization by Fund Type and Department.
- Automatic tallies of cost-to-date for variance analysis at-a-glance.
- Status bar with record count and context information.

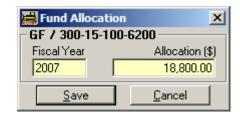


Working with Allocations

Each fund supports the notion of annual allocations for the purpose of instant variance analysis.

To add an allocation, click the Add Allocation button and key in the year and allocation amount. *PubWorks* will add this allocation and instantly calculate the variance for the allocation based on the activity records associated to the fund for that year.

To modify an allocation, either double-click on the allocation row you wish to modify or first click the row you wish to modify and then click the





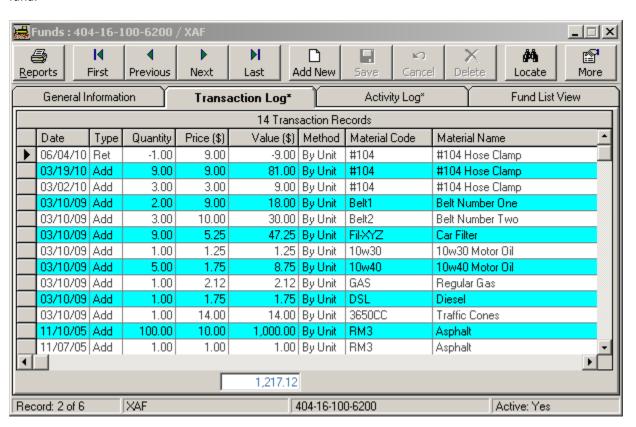
Modify Allocation button. *PubWorks* will present you with a screen containing the allocation year and the allocation amount. At this point you may change these values if you wish.

Deleting an allocation is accomplished by clicking on the row you wish to delete and then clicking the Delete Allocation button.

Allocation variances are based on the *PubWorks* activity records that have been linked to the fund. Over time, as activity records are linked to funds, variances will change and be kept up to date instantly and automatically.

Transaction Log

This tab lists all inventory additions, returns and transfer of materials and parts that are linked to the linked to the fund.



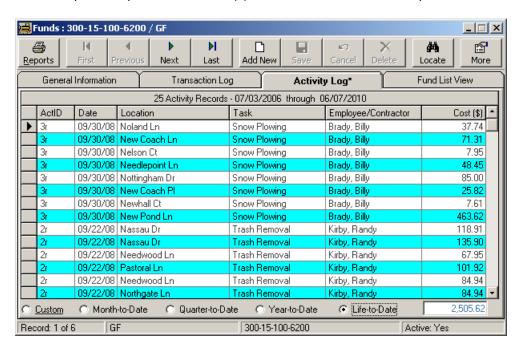
Double clicking a row in the grid will display the transaction and give you the opportunity to view it in detail and edit it if you need to.

PubWorks Training Guide 49 6/10/2010



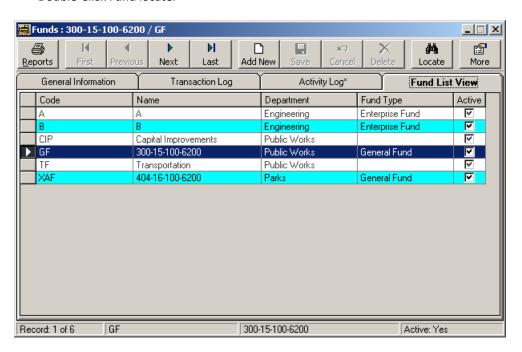
Fund Activity Log

- Column-Click Sorting and Double-Click Activity record locate.
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Grid caption displays date range and record count and Activity cost summary.
- Tab caption will possess an asterisk (*) when one or more records are present.



Funds List View

- All tasks listed together.
- Column-Click Sorting.
- Double-Click Fund locate.





Purchase Orders

Create a record of purchase orders issues by your department and keep track of the actual funds spent per Purchase Order. The Purchase order gives you the ability to detail the items ear-marked for purchase (in the Purchase Order Details grid) plus keep a record of actual vendor payments made (in the Vouchers grid)

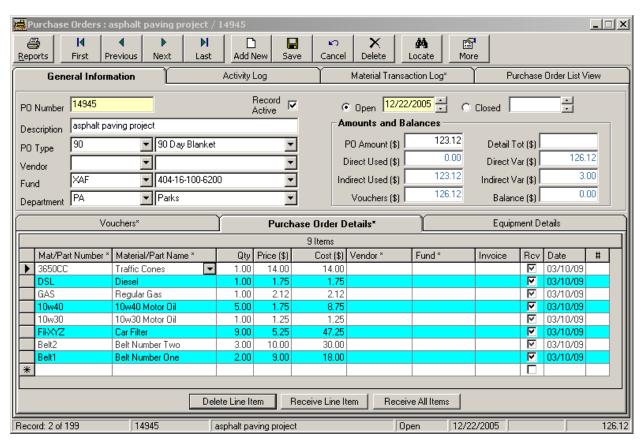
The Purchase Order's amount can be set manually or it can be set based on the total value of the items present in the Purchase Order Details grid.

PubWorks automatically calculates dollars "consumed" for the Purchase Order as follows:

- Direct consumption based on entries in the Daily Activities Direct Job Cost items tab.
- Indirect consumption based on material/parts additions from the Materials Add screen.
- Voucher consumption based on the sum of the values entered in the Vouchers grid.

General Information

- General information (16 character number, 64 character description).
- Purchase Order status and open and closed date values.
- Categorization by Fund and Vendor.
- Automatic tallies of consumption-to-date for balance analysis at-a-glance.
- Status bar with record count and context information.



Purchase Order Details

Purchase Order Details can be entered directly on the Purchase Order Details grid by either entering a material/part number or selecting a material/part from the drop list that is resident in the material/part cell. Once a material/part is selected, the material/part name, a quantity of one and the unit cost is automatically filled in to the other cells in the grid's row.



You may change the quantity and price if you wish and **PubWorks** will calculate a new line item cost and will also update the Detail Total for the items purchased.

You can delete a grid row by clicking in the gray button just to the left of the value in the material/part cell and then pressing the delete key on you keyboard.

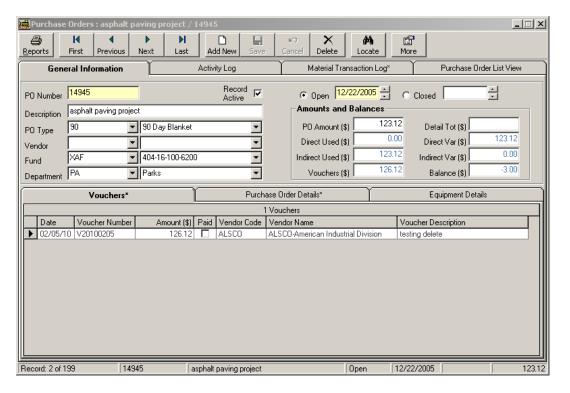


Purchase Order Vouchers

Click the Vouchers tab on the lower portion of the Purchase Order screen to reveal the voucher grid. This grid is used to record payments made to vendors for the purchase order. Only the amount value is required by the Vouchers grid – the date (it will use today's date) and the vendor (it will insert the vendor fro the vendor drop list) will be filled in automatically if you chose not to enter values.

As voucher line-items are entered, *PubWorks* will automatically calculate a Purchase Order balance based on the total of the entered voucher amounts.

You can delete a grid row by clicking in the gray button just to the left of the Voucher Date cell and then pressing the delete key on you keyboard.

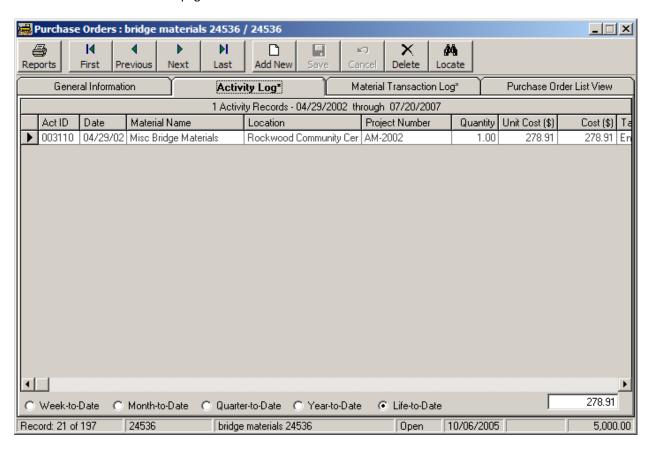




Purchase Order Activity Log

These are the details of direct consumption – based on entries in the Daily Activities Direct Job Cost items tab.

- Column-Click Sorting and Double-Click Activity record locate.
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Grid caption displays date range and record count.
- Tab caption will possess an asterisk (*) when one or more records are present.
- Activity cost summary.
- Screen shot is on the next page.



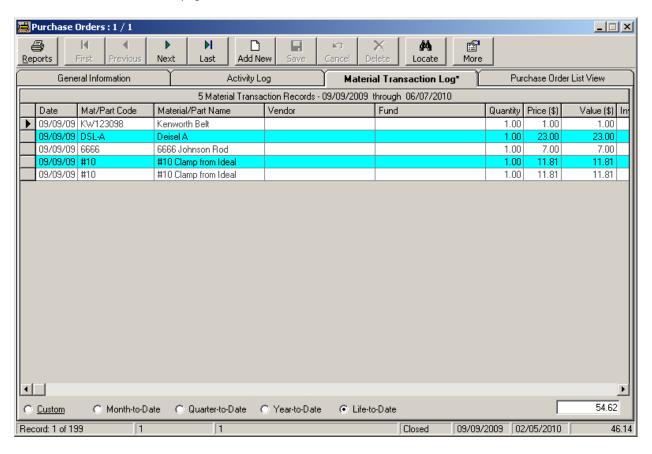
PubWorks Training Guide 53 6/10/2010



Purchase Order Material Transaction Log

These are the details of indirect consumption – based on material/parts additions from the Materials Add screen.

- Column-Click Sorting.
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Grid caption displays record count.
- Tab caption will possess an asterisk (*) when one or more records are present.
- Screen shot is on the next page.

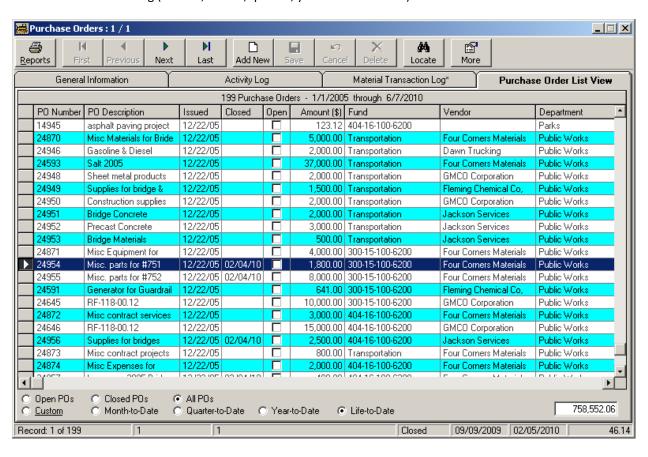


PubWorks Training Guide 54 6/10/2010



Purchase Orders List View

- All purchase orders listed together.
- Column-Click Sorting.
- Double-Click Purchase Order locate.
- Radio-button-filtering by status (open, closed, all).
- Radio-button-filtering (custom, month, quarter, year and life to date).



PubWorks Training Guide 55 6/10/2010



Vouchers and Warrants

Create a record of purchase orders issues by your department and keep track of the actual funds spent per Purchase Order. The Purchase order gives you the ability to detail the items ear-marked for purchase (in the Purchase Order Details grid) plus keep a record of actual vendor payments made (in the Vouchers grid)

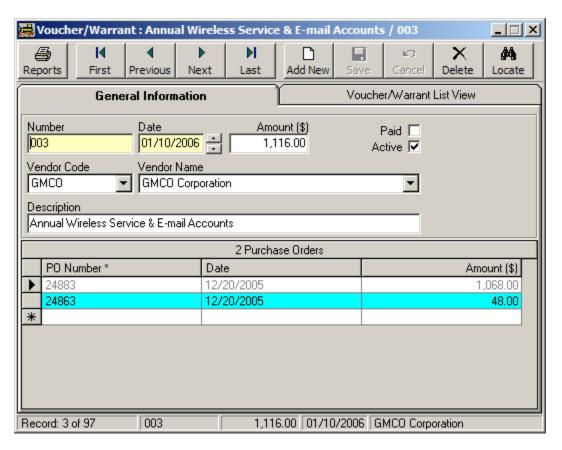
The Purchase Order's amount can be set manually or it can be set based on the total value of the items present in the Purchase Order Details grid.

PubWorks automatically calculates dollars "consumed" for the Purchase Order as follows:

- Direct consumption based on entries in the Daily Activities Direct Job Cost items tab.
- Indirect consumption based on material/parts additions from the Materials Add screen.
- Voucher consumption based on the sum of the values entered in the Vouchers grid.

General Information

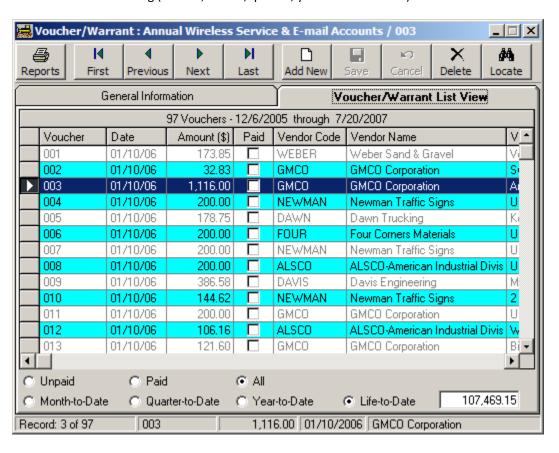
- General information (16 character number, 64 character description).
- Voucher status and paid date.
- Categorization by Vendor.
- Automatic tallies of consumption-to-date for balance analysis at-a-glance.
- Status bar with record count and context information.





Vouchers and Warrants List View

- All vouchers/warrants listed together.
- Column-Click Sorting.
- Double-Click Voucher/Warrant locate.
- Radio-button-filtering by status (open, closed, all).
- Radio-button-filtering (custom, month, quarter, year and life to date).



PubWorks Training Guide 57 6/10/2010

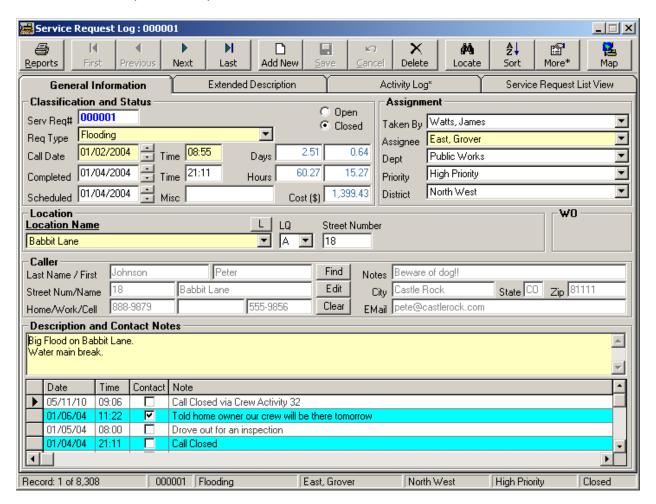


Service Requests

Track Service Requests and the cost of work performed to remedy problems. This module supports the ability to accumulate a database of callers, assign Service Requests to supervisors, track status and actions taken, assign resources consumed and compile statistical and cost reports based on the Service Requests on file.

General Information

- Call number automatically assigned.
- Call date and time automatically assigned but changeable.
- Schedule for service date.
- Categorization by Call Type, Call Taker, Assignee, Department, Location, District and Priority.
- Resident locate/selection or entry capability.
- Automatic calculation of call service duration.
- Call description.
- Contact Notes grid.
- Miscellaneous key field for easy identification and search.

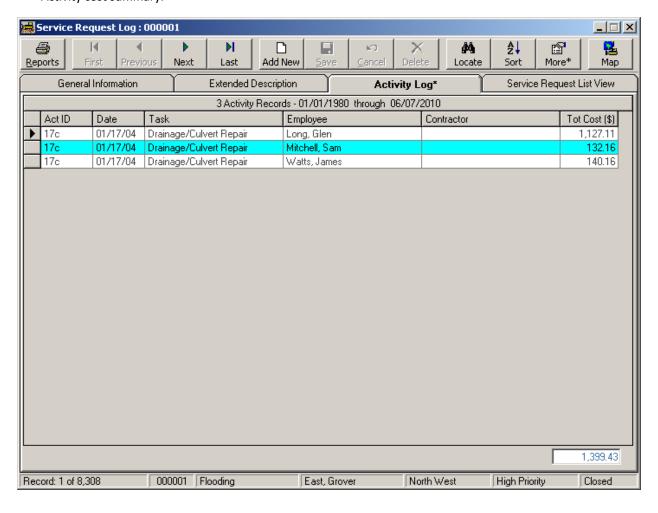


Remember: Yellow fields mandatory, white fields optional. You can tell *PubWorks* which fields you want as mandatory and which should be optional on the **Service Request Settings** screen – see page 62.



Service Request Activity Log

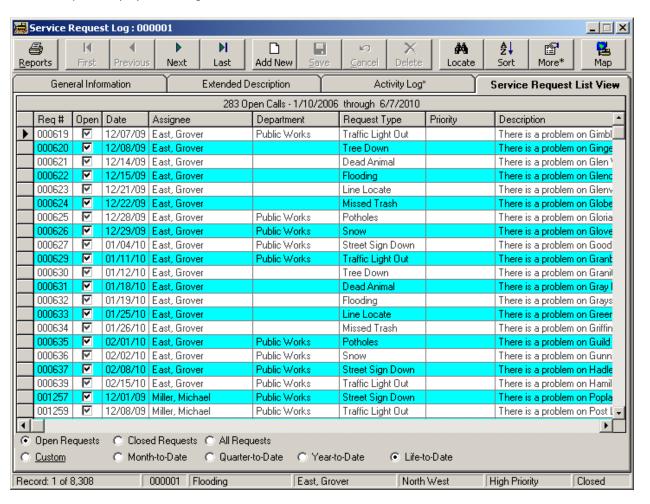
- Column-Click Sorting and Double-Click Activity record locate.
- Grid caption displays date range and record count.
- Tab caption will possess an asterisk (*) when one or more records are present.
- Activity cost summary.





Service Request List View

- All Service Requests listed together.
- Column-Click Sorting.
- Double-Click Service Request locate.
- Radio-button-filtering by status (open, closed, all).
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Grid caption displays date range and record count.



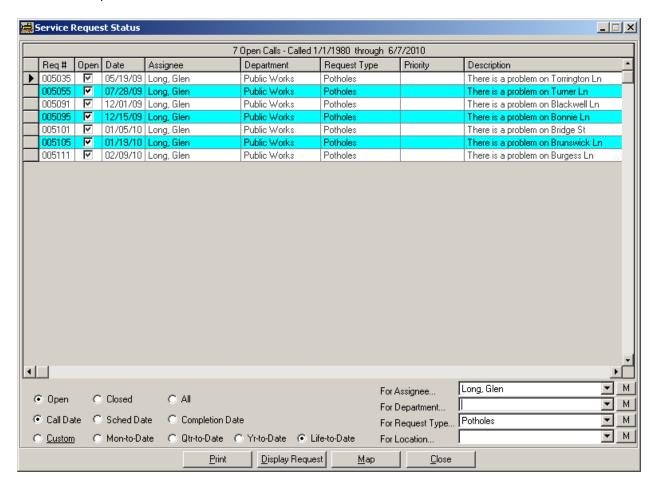
PubWorks Training Guide 60 6/10/2010



Service Request Status

The data grid below can be used by assigned employees or supervisors to check on Service Requests by status. Open calls assigned to the logged-in employee are automatically displayed but the displayed set of Service Requests can be changed using the status filtering and assignee filtering controls at the bottom of the window.

- Radio-button-filtering by status (open, closed, all).
- Radio-button-filtering (custom, month, quarter, year and life to date).
- Drop list filtering equipped with the Multi-item list capability.
- Display filter by logged in user or assignee and/or department.
- Column-Click Sorting.
- Double-Click Service Request locate.
- Select and print.



PubWorks Training Guide 61 6/10/2010

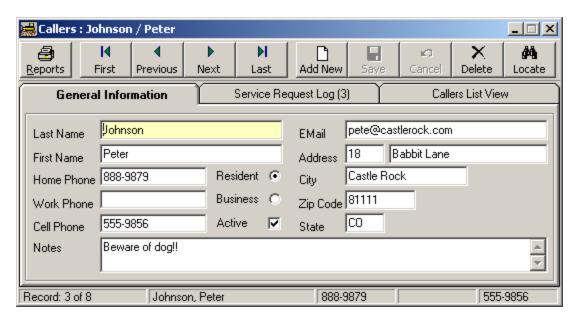


Callers

As Service Requests are logged the callers that are the source of the calls are automatically placed in a caller's table. This capability makes it possible to attribute calls for service to particular individuals or entities.

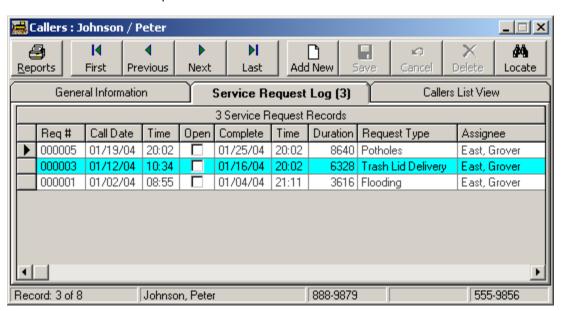
General Information

- Contact information.
- Status bar with record count and context information.



Caller Service Request Log

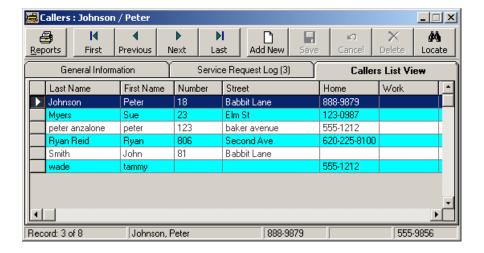
- Column-Click Sorting.
- Grid caption displays record count.
- Tab caption will possess an asterisk (*) when one or more records are present.
- Double-Click Service Request locate.





Callers List View

- All callers on file listed together.
- Column-Click Sorting.
- Double-Click Caller locate.

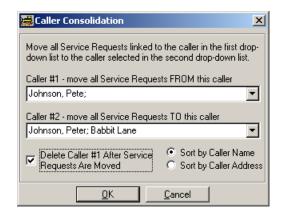


Caller Consolidation

This powerful function allows you to clean up portions of your caller database that, due to time and sometimes less than careful use has caused the creation of near duplicate records.

The example to the right shows that two callers exist representing the same person. Here, **Johnson**, **Pete** will have all Service Requests associated to him moved to **Johnson**, **Pete** and after the Service Requests are moved, caller **Johnson**, **Pete** will be completely deleted.

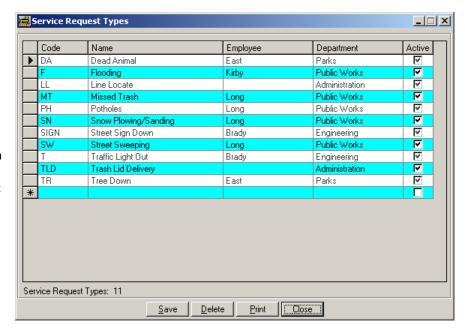




Service Request Types

Like other category data items, Service Request Types are managed from a simple grid form screen.

Here, though added power is provided. Default employee and departments can be associated with each Service Request type so that when a Service Request is created it will automatically be assigned to the employee and department established here.

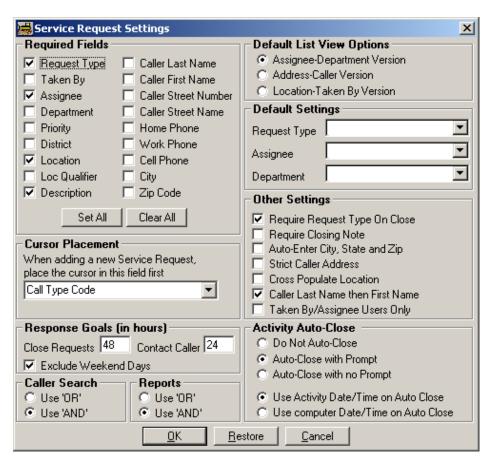




Service Request Settings

This window, found from either the System menu or the Service Request menu, give you control over the behavior of *PubWorks* Service Requests.

- Required Fields by setting or clearing check boxes you can customize the set of required fields.
- Cursor Placement when a new Service Request is created, PubWorks will place the cursor in the selected field.
- List Views there are two list view options to choose from – one is assigneedepartment oriented the other caller-address orient.
 Select the one that best suites your needs.
- Response Goals for reporting purposes (close and contact analysis reports) specify what the goals are for resolving Service Requests and contacting the callers.
- Default settings are values that PubWorks will automatically fill in for you with each new Service Request. These default values can save you time.



- Other Settings if you wish, PubWorks will require a Call Type or a Closing Note when a Service Request goes
 from "open" to "closed." Also, if you wish, PubWorks will automatically insert your agency's city, state and zip
 or new callers.
- When searching for callers, ask *PubWorks* to use AND to join criteria (therefore reducing the number of choices available) or use OR to join criteria (thereby increasing the number of choices available).
- Activity Auto-Close options allow you to determine what happens to a Service Request's status value once it
 has been linked to an Activity record. *PubWorks* can close a Service Request automatically, close it only after
 you are prompted, or simply do nothing to the Service Request's status value. Further more, if *PubWorks* is
 asked to close the Service Request, you have an option as to what date is used as the Service Request close
 date.



Daily Activities

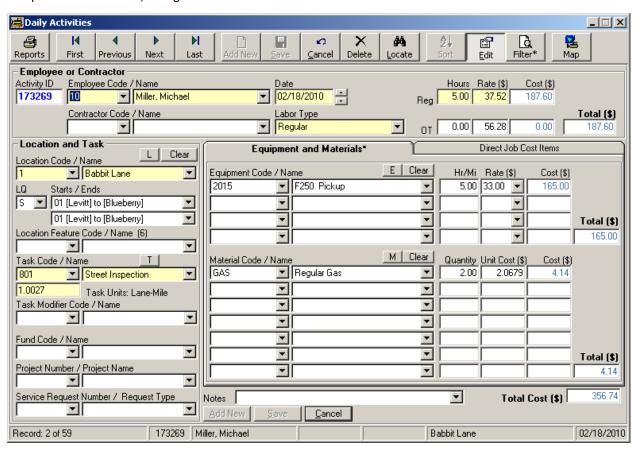
This represents the crux of the **PubWorks** program – it is the source of all cost data. Here is where information is pulled together from a variety of information sources so that you can record activities exactly as they occur on an ongoing basis.

Activities are based on:

- Employee (or Contractor).
- Tasks performed and optional Task Modifier.
- Location (that can be qualified with address, mile markers or Segments) and Location Feature.
- Equipment used (optional).
- Materials used (optional).
- Project (optional).
- Fund (optional).
- Service Request (optional).

The Button Bar has two critical additional buttons

- Sort allows for varying sort order which will determine the order in which records are displayed.
- Edit to prevent inadvertent changes, records are always displayed in a locked mode, clicking the edit button
 permits record edits, changes and corrections.



Other features and considerations:

- Add click either Add New button; in fact pressing the Enter key is equivalent to clicking the Add New button.
- Employee or Contractor for each activity record only one employee or contractor can be entered/selected.
- Contractor Activities when a contractor is selected, only a total amount is permitted to be entered; it is
 assumed that contractors supply invoices and that these invoices cover the cost of contractor labor,
 equipment and materials.



- Enter Code or Name dual drop lists are present to permit the entry /selection of an entity code or name. When a code is entered/selected, *PubWorks* will automatically fill in the matching name. When a name is entered/selected, *PubWorks* will automatically fill in the matching code.
- **Key or Click** the drop lists are all designed to accept either keyboard or mouse-click selection entries. Data entry will be faster with key strokes and the tab order of this window is setup to go to the code drop lists only.
- **Labor Types** a variety of (user-defined) labor types can be used better describe the work performed for any given activity but the default value (typically something like *Regular Time*) will be filled in automatically.
- **Employee Labor Rates** when an employee is selected, that employee's labor rate for regular and overtime are automatically filled in. Appropriately empowered users can override employee rates.
- Equipment and Material Rates these behave exactly like employee pay rates: they are automatically filled in and appropriately empowered users can override rates. Equipment rates (primary and secondary) are placed in a drop list for selection.
- Material Quantities when materials are used, quantities are automatically deducted from inventory.
- **Reuse Last** *PubWorks* can be set up to reuse the last values entered for employee, date, location, task, equipment and/or materials. See System Settings for more information.
- **Tab Order** In System Settings, the tab order for employee code/name and equipment and materials can be customized.
- Date the activity date field possesses all the special date characteristics described for date fields above.
- **Location Qualifier** specify where on the location the work occurred; i.e.: at an address, an intersection, on a segment or on a series of segments, or on or between mile posts.
- Location Feature a location feature drop list will be populated if features exist for the selected location.
- Task Units automatically filled in if task configuration corresponds with location dimensional values.
- **Direct Job Cost Items** see screen shot and description on the next page.

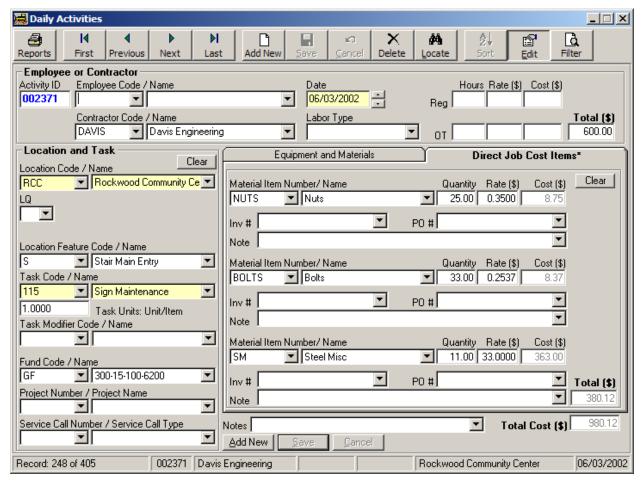


Direct Job Cost Items – this tab contains room for three additional material entries on the activity record.

The difference between entries on this tab and entries on "Equipment and Materials" tab is

- material entries can be attributed to a contractor
- the material used need not exit in your material inventory and
- you can enter additional information about the acquisition of the material in the form of an Invoice number,
 PO number and miscellaneous note.

The information entered on this tab contributes to the total cost of materials for the activity record and is associated (allocated) to the task and location on the activity record.



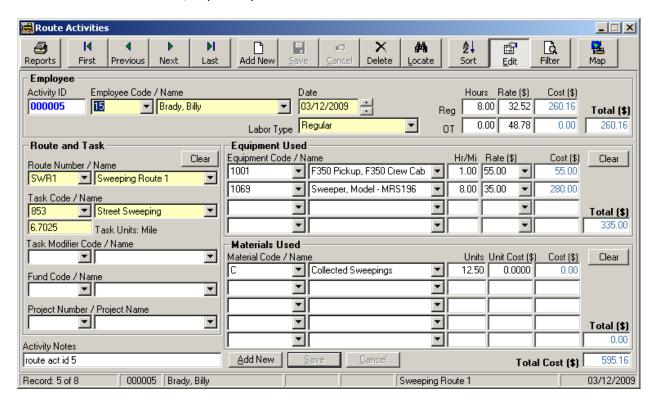
PubWorks Training Guide 67 6/10/2010



Route Activities

A separate Route Activities window exists in *PubWorks* and its sole purpose is for the entry of route-based activity records. Its form and function are almost identical to the Activity window described above with some important exceptions.

- Route Selection instead of selecting a location, you may only select a route.
- **Default values** if the selected route possesses default values for employee, task and equipment, these values will be automatically filled in.
- No contractors it is assumed that contractors do not perform route activities.
- **Equipment and Materials** instead of three and six entries for equipment and materials, only two and four entries are made available, respectively.



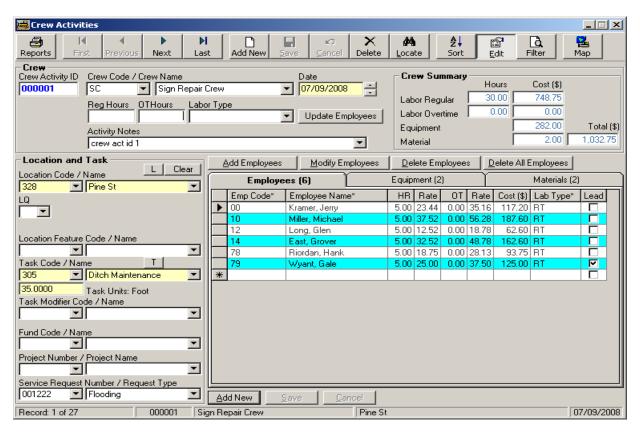
PubWorks Training Guide 68 6/10/2010



Crew Activities

A separate crew activities window exists in *PubWorks* and its sole purpose is for the entry of crew-based activity records. Its form and function are similar to the activity and route activity windows described above with some important exceptions.

- **Crew Selection** the single selection of pre-defined crew will almost completely fill in the Crew Activity screen leaving only the Location, you may only select a route.
- **Default values** the selected Crew's pre-defined resources and default values are used to automatically filled in the Crew Activity screen but you may change any of the with our effecting the pre-defined values.
- Adding/Removing Crew Resources if you select a predefined crew, you can easily add, modify or delete
 resources as you see fit. Either use the Add/Modify/Delete buttons above the resource grid or enter your
 values directly into the resource grid. Crew additions, modifications and deletions made on the Crew Activity
 screen do not affect pre-defined crews.
- The Ad-hoc Crew instead of selecting a pre-defined crew, you can assemble a crew from scratch if you wish. Either use the Add/Modify/Delete buttons above the resource grid or enter your values directly into the resource grid. Crews assembled in this manner will not be stored along with the other pre-defined crews in *PubWorks*.
- Lead Employee PubWorks will take the Lead Employee and assign all equipment and materials used to that
 employee. When using a crew, PubWorks will require that you designate a single, lead employee for the crew.
- **Resource Tabs** each set of resources displayed on its own tab. Each resource tab caption will have a number in parenthesis indicating the number of selected resources present
- **Crew Summary** the upper right-hand portion of the screen possesses a set of summary fields that will automatically tally labor hours, labor cost, equipment cost, materials cost and total cost.





Adding Activity Records

Daily Activities are the crux of the *PubWorks* database – here is where costs are recorded and associated to Locations, Tasks, Employees and etc.

When you need to add Activities (timesheets or time cards or contractor invoices), click the **PubWorks** Data menu and then the **Daily Activities** item to load the Daily Activity screen. The Daily Activities screen has an **Add New** button on the button bar and an additional **Add New** button on the lower edge of the screen. Clicking either of these buttons will start the add-new process.



Please note that the lower **Add New** button possesses a black silhouette indicating that it is the *default* button – pressing the enter key is equivalent to clicking the default button.



When the add-new process begins, the activity screen's fields will be cleared of any existing data and will be enabled for data entry. At this point you will enter the details of the activity record that is based on an Employee at a Location performing a Task.

Things to Notice

Notice that most of the data entry fields are in the form of drop-lists and that drop lists are *paired*. The pairing takes the form of a code drop list followed by a name drop list. These paired drop-lists work in unison – selecting a value from the code drop-list will cause its matching value in the name drop-list to appear and vice versa.

Values in the code drop-lists are in code order and they also possess a column for the code value and the corresponding name value. Values in the name drop-lists are in name order and they also possess a column for the corresponding code value.

Values, from either drop-list, can be selected by using the mouse or they can be selected by typing all or part of a value. Either way, when a selection is clicked or typed in a drop-list, its corresponding code or name is automatically selected.

When and Employee is selected, the employee's pay rates are automatically filled in. The same is true for Equipment and Material selections.

Tab Order

The Daily Activities screen is designed to accommodate both the novice and expert user and all users in between. That is why you can navigate this screen and satisfy its data entry requirements with or without the use of the mouse.

The screen's tab order (where the cursor goes with each press of the Tab key) is designed to move from code field to code field. This assumes that the user is familiar with the appropriate code values and plans on keying them in for fastest data entry.

User Power settings are available to alter and customize the tab order to make this screen as efficient for an individual user as possible.

Required Fields

A Daily Activity, at the very least, records the work performed by an Employee at a Location performing a Task. This means that the minimum required fields are an Employee, the employee pay (cost) rate, the labor hours and a labor type (which is filled in automatically), a date (also filled in automatically) a Location and a Task.



If Equipment is used then values for Equipment usage rates and hours or miles are required. Similarly, if Materials are consumed then a Material quantity and unit cost are required. In both cases usage rate and unit cost are filled in automatically.

Saving

When you have finished entering a Daily Activity you can click the button bar's **Save** button or the **Save** button on the screens bottom edge, or for fastest results you can simply press the **Enter** key. **PubWorks** will perform a validation check on the data you have entered; if the data is valid, the newly entered record will be redisplayed but all the fields will be locked to prevent unintentional changes. If the data validation check fails, then an appropriate and descriptive error message will appear and PubWorks will place the cursor in the offending field.

Editing

As mentioned above, the Daily Activity screen displays all data in a locked mode to prevent unintentional changes. It is clearly important to be able to correct and/or add to existing Daily Activity records. This is easily accomplished by clicking the **Edit** button on the button bar. Such a click will render all fields unlocked giving you the ability to make any change you wish. Once your edit is complete, click the **Save** button (either one) or press the enter key. When you save the record, the same validation process will be performed as described above for new records.

Re-Use Last

There's a way to get **PubWorks** to remember as much as or as little about the last Daily Activity entered for purpose of copy that remembered data into the next Daily Activity that you create. We call this Re-Use Last. From the User Powers screen each user can have a different set of re-use last settings in order to make the Daily Activity entry process as fast and as accurate as possible.

For example, if ask *PubWorks* to re-use the last employee for each new Daily Activity record then each time you click the Add New button, *PubWorks* will fill in the employee field automatically with the employee from the last Daily Activity record you entered saving you one entry. The same can be done for Location, Task, Equipment, Materials, Fund, Project, Service Requests, Task Modifier, Task Units, Location Feature and Activity Notes.

By keeping the User Power screen open while you are keying in Daily Activities, you can change you personal Re-Use Last settings on the fly to make the data entry process as fast and efficient as possible.

Special Behavior

There are a variety of subtle features a work on the Daily Activity screen – knowing how they work will enhance the quality of your Daily Activity data and make the entry process easier.

Location Features – these paired drop lists appear just below the drop lists for Locations. When a location is selected, the associated set of location features will automatically populate the Location Features drop lists.

Task Units – this text field just below the Task Code drop list is where a value can be entered for the amount of work completed. This value will be filled in automatically if the Task has an associated Unit Type and the Location has a dimensions value that corresponds to the Unit Type. For example, if the Task selected is "Snow Plowing" and it has as its unit type "Miles" and the selected location is "County Road 123" which happens to be 3.75 miles long, the **PubWorks** will automatically place 3.75 into this field and the Task Units label will read "Task Units: Miles." Even though **PubWorks** might fill this field in with a default value, you can change to whatever value you wish – in fact, there's even a built in calculator in this field to help with arithmetic.

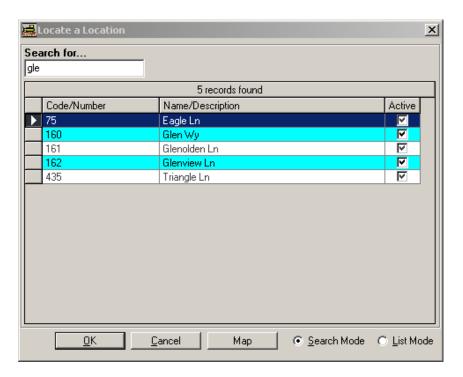
Activity Notes – this is essentially a free-form text field into which you can enter a 64 character note to help describe the work the Daily Activity represents. This field looks like a drop list and can be used as such if you wish. When the Daily Activity screen loads, it looks at all activity notes and create a list of the distinct notes and places tem in the drop list, you can then select an already entered value from the drop list saving time and enhancing the quality of your data. You can also type in a new value if the values in the list are not to your liking.



Date Field – don't forget that the date field has an embedded calendar (Double-Click) and fills in a date in response to special key strokes: Y for yesterday, T for tomorrow, M for manana. Also, using the up/down arrow keys and/or the +/- keys you can scroll a date forward or backward in time.

Sort Order – the Sort button on the Button Bar allows you to arrange the Daily Activity records in whatever order you wish. The sort order you select will not interfere with the sort order of other users.

Lookups – a small square button appears near the location, task, equipment and materials drop lists (labeled "L", "T", "E" and "M" respectively. Clicking this button will provide a lookup feature for item your searching for. Type a few characters to hone in on the item of interest, click the row and then click OK and your selected item will be copied to the appropriate drop list on the Activity screen.



PubWorks Training Guide 72 6/10/2010



Adds, Modifies and Deletes

As with any program, adding new information and modifying or deleting existing information is an important function. *PubWorks* provides straightforward means by which to perform these functions.

Adding New Information

On the *PubWorks* data screens possessing the standard button bar, click the **Add New** button. This will clear the screen's fields and position the cursor on the screen's Code field. Key in the data values you wish the new record to possess moving from field to field with the tab key or mouse clicks. When you are satisfied with the data entries you have made, click the button bar's **Save** button.

When you click the Save button, *PubWorks* will check that the code and name values you entered are unique and will perform other data validations that the particular table requires. Generally speaking, only the code and name values are required.

Modifying Existing Information

Changing existing information is very easy. First locate the record you wish to change (more on searching, finding and locating below). The move the cursor to the field you wish to change and make the change you desire.

Once a change is started the button bar's **Cancel** and **Save** button will become enabled. If you wish not to save the change, click the Cancel button. If you do wish to save the change, the click the save button, **PubWorks** will perform data validation checks to be sure the data you are saving is valid.

Clicking the Save button is not really required. Clicking any button on the button bar will cause **PubWorks** to validate and save the new or modified record. Even closing the screen will cause **PubWorks** to save the record. The idea is that if you forget to save the record **PubWorks** will handle the save for you.

Exceptions: Activity records can be modified but you must first click the Edit button on the button bar because these records are displayed in a "locked" mode. Also Category Data records can be modified in the same why you would change cells in a spreadsheet.

Deleting Existing Information

Deleting existing information is also very easy. First locate the record you wish to change (more on searching, finding and locating below). Then click the button bar's Delete button. *PubWorks* will ask you to confirm your wish to delete the record.

If *PubWorks* can delete the record it will otherwise it will make it inactive. Deleting a record is not always possible because the record might be associated to one or more other records in the system. Deleting such a record would effectively tear a hole in the *PubWorks* database – something that *PubWorks* attempts to avoid – this is called a referential integrity check.





For example, John Doe might have worked for you for three years and has three years worth of activity records reflecting work he performed. For some reason John leaves your organization and now you think it would a good idea to delete his employee record. In such a case, *PubWorks* would not be able to delete John Doe's record because of all the activity records his employee record is associated with. *PubWorks* would make John Doe inactive.

Exceptions: Category data items can be deleted by clicking on the row/record you wish to delete and then clicking the Delete button at the bottom of the screen. The same delete confirmation and referential integrity check is performed.



Searching, Finding and Locating Information

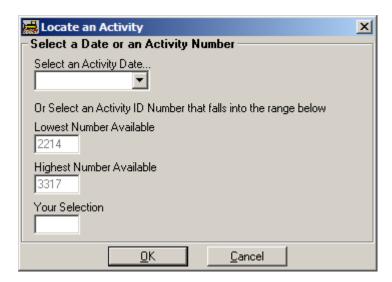
There are a variety of ways to locate records in PubWorks.

Locating Category Data

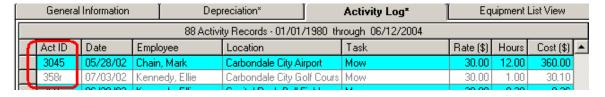
Category data screens are quite simple so therefore the locate process is also simple. Display the category data table of interest and scroll to the record you wish to edit. If many entries exist, Column-Click Sorting can be used to aid in the locate effort.

Locating Activities, Route Activities and Crew Activities

The Activities, Route Activities and Crew Activities button bars possess a Locate button. When you wish to find a particular Activity record, click this button and you will be presented with a pop-up window into which you can select an activity date or an activity ID number. Type the number or select the date of interest and click the OK button and you will be brought to the Activity or Route Activity record you asked for. At his point you may change the record if you wish but please remember to click the button bar's Edit button first.



Another way to locate an Activity record is to double click the record's row in the Activity Log of another screen (for example the Equipment screen's Activity Log) and you will be brought to the Activity, Route Activity or or Route Activity screen with the record of interest displayed. Please remember that Route Activity numbers are followed by a lower-case "r" (like 358r below) and Crew Activities are followed by a lower-case "c".



Perhaps the best and most flexible way to locate activity records or groups of them is via the **Activity Filter** – please see the section below that deals with this powerful tool directly.

PubWorks Training Guide 74 6/10/2010

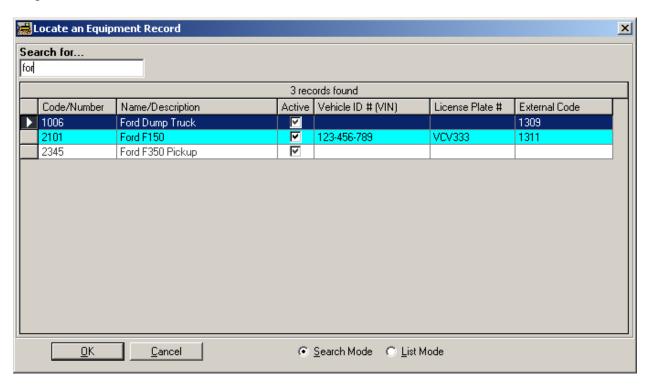


Locating Other Records

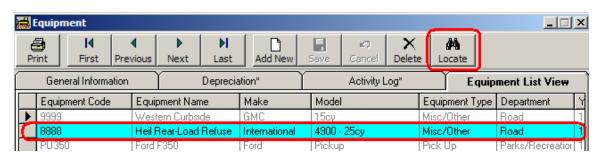
By other records, we are referring to all screens with button bars (excluding Activity screens). These include Contractors, Employees, etc... Each of these screens possess two locate methods.

The first method is clicking the Locate button on the button bar. When clicked, a pop-up window will be displayed with a single text box. As you type characters into the text box, *PubWorks* will find all records that possess the characters you have typed. The records found will be listed in the grid that appears below the text box.

Once the grid displays the record you're looking for, either double click its row in the grid or single click its row in the grid and click the OK button.



The second method is to use the List View. When you see the record of interest in the data grid, double click its line (anywhere on the line) and the record will be displayed in the General Information tab. If many entries exist, Column-Click Sorting can be used to aid in the locate effort.



PubWorks Training Guide 75 6/10/2010



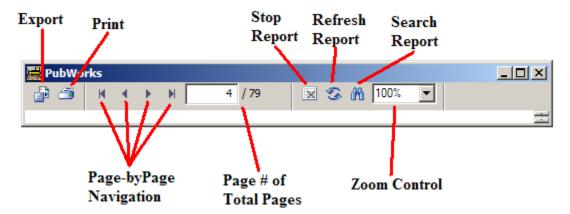
Reporting

In **PubWorks** there are essentially three classes of reports:

- Cost reports.
- Listing reports.
- Miscellaneous reports.

All **PubWorks** reports appear in a print preview window and require a single click to send the report to a printer. The print preview window possesses controls for:

- Page navigation (first, previous, next, last).
- Send to the default printer.
- Send to a network printer.
- Export to a file.
- · Zoom control.
- Page number-of-number information.



Once you send a report to the printer, the following window gives you the option to print all pages or any range of pages and any number of copies.

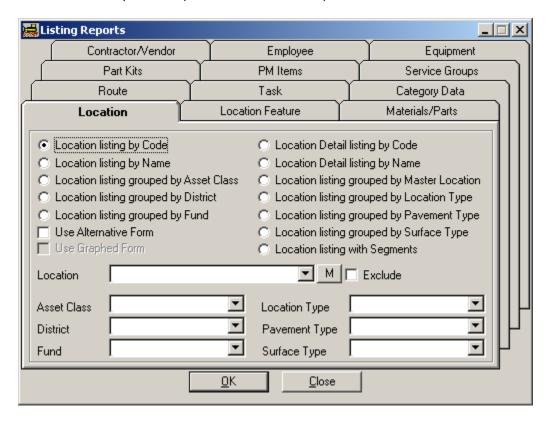




Listing Reports

Listing reports are simple and straightforward listings of each record that resides in each of the *PubWorks* data tables. Listing reports exist for contractors, employees, equipment, locations, materials, routes, tasks and all category data items. Listing reports can be printed in either code or name order and can be grouped and filtered by category.

From the same listing report screen, you can gain access to all listing reports with in *PubWorks*. Simply click on the tab of interest and you will be presented with a set of report choices.



PubWorks Training Guide 77 6/10/2010

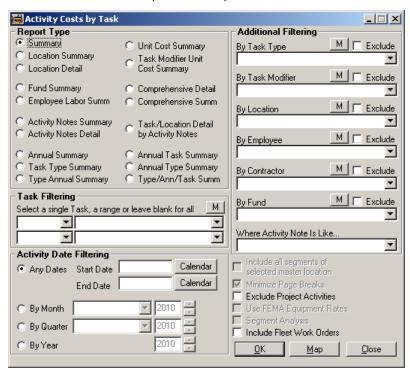


Cost Reports

Cost reports are a key *PubWorks* feature and provide the means by which cost analysis and cost accounting can occur. Cost reports are based on activity cost data and are organized on the following basis – each corresponding to a major *PubWorks* data table/module:

- Contractor Cost Reports.
- Employee Cost Reports.
- Equipment Cost Reports.
- Equipment Asset and Depreciation Reports.
- Location Cost Reports.
- Location Asset and Depreciation Reports

- Material Cost Reports.
- Material Inventory Analysis Reports
- Task Cost Reports.
- Project Cost Reports.
- Purchase Order Balance and Use Reports.
- Service Request Cost Reports.



Using Task cost reports as an example – all cost report options make use of a similar pop up window – it can be seen how reports are generated.

- Report type selection a series of radio buttons permit selection of the type of report desired.
- Task filtering select a single task or a range of tasks for inclusion in the report.
- Date filtering select a date, date range, entire month, quarter or year.
- Other filtering limit report data to only include a certain task type, location, employee, contractor and fund.

If too much filtering is applied, thereby providing the report with no data, **PubWorks** will notify you of such a situation.

All reports are displayed in a print preview window and all cost reports possess a legend documenting the filtering that was applied to the report.

Other/Miscellaneous reports

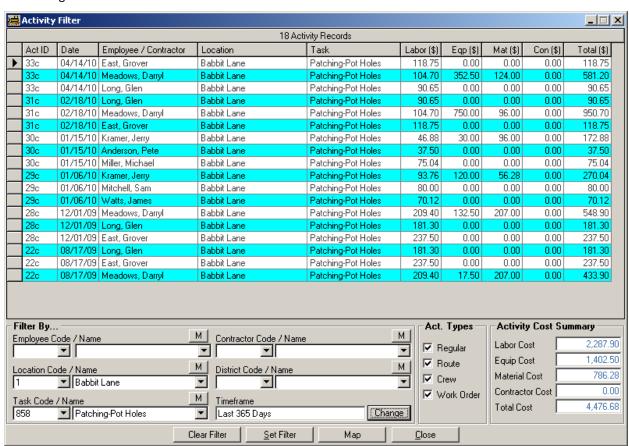
- Employee Date reports.
- Equipment Net Asset, Depreciation and Replacement reports.
- Location Net Asset, Depreciation and PQI reports.
- Material Reorder and Value reports.
- Service Request Statistics reports.



Activity Filter

The activity filter is a powerful tool that can be used for a variety of purposes:

- Limit the number of activity records loaded with the activity screen during the data entry process this can greatly improve the speed and performance of the activity screen.
- View activity records based on any type of user defined criteria here the activity filter acts as an information activity cost reporting tool.
- Locate activity records based on any criteria clicking on a displayed activity record will open that activity record in the appropriate activity screen.
- Users can individually set the filter to suite their own preferences without interfering with other user's settings.



Filtering – Use the paired drop lists to select values by which to filter. Use the Change button (just to the right of the Timeframe field) to select any date-based timeframe you wish. Upon changing any of the filter controls, the records displayed in the grid will immediately change.

Summary Information – A cost summary of the activities in the gird will be displayed on the lower right-hand side of the screen. Costs are broken out by labor, equipment, material and contractor sub-totals. Additionally, the grid's caption display the number of records displayed.

Clear Function – the Clear Filter button will remove all filtering criteria and cause the activity filter to load all records into its grid. If you have a large number of records, this load process might take a few seconds to complete.

Set Function – the Set Filter button will establish the current setting for the user and these settings will dictate how activity records are loaded into activity screen for this user. When a filter is set for a user, the Filter button on the activity screens will possess an appended asterisk ("*").



Locating Records – The grid in which activity records are displayed possesses the standard Column-Click sorting and Double-Click locate features of all other PubWorks data grids.

Activity ID Numbers – Activity records with an "r" or "c" appended are route and crew activities respectively. Double-click on such a row in the grid will open the activity record in the route or crew activity screen as appropriate.

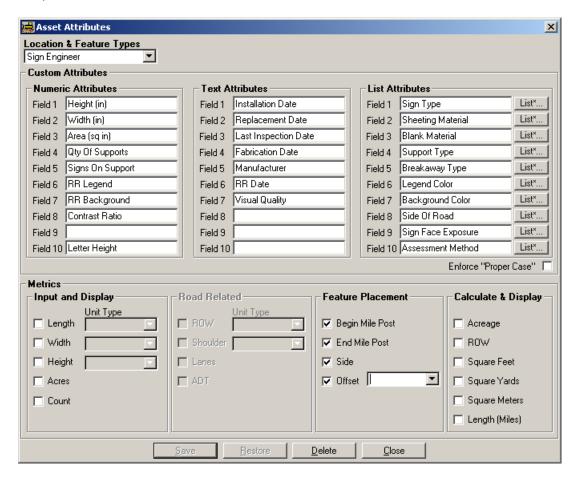
PubWorks Training Guide 80 6/10/2010



Asset Attributes

Here's where you can define and modify a set of custom attributes for any and all of your location features.

- Select a Location Feature Type from the drop list or double click an already defined set of labels from the scrollable list.
- Once a Location Feature Type is selected, define or modify the custom labels you have the option of creating ten numeric field and ten text field labels.
- When you a satisfied with the defined set of labels click the Save button.
- If you wish to cancel changes to labels or you wish not to save a newly added set of labels, click the Cancel button.
- If you wish to delete a set of Location Feature Type labels, select the Location Feature Type from the scrollable list by clicking on it and then click the Delete button the label set will not be deleted if any Location Feature possesses that set of labels.



PubWorks Training Guide 81 6/10/2010



Asset Registry

For Locations and Location Features you can display any number of assets based on your own set of filtering criteria. The nature of the display is financial – in other words, these screens show the key depreciation parameters for each asset.

Furthermore, you can update depreciation parameters and create whole depreciation schedule for any and all assets based on the asset records you have elected to display.

Drop-list Filtering – use the drop-list at the top of the screen to display a select group of asset records.

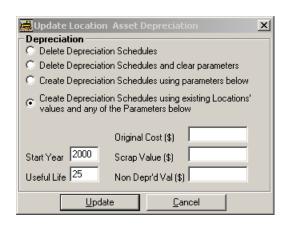
treet 🔽 F	urface Type 'aved sset Class	☐ Excl	Asphalt		▼ 2	scal Year St 010 📫 Exclude Ma	
Location Records Location Name	Len (mi)	Original Value (\$)	Book Value (\$)	Scrap Value (\$)	Non Depr'd Val (\$) 9	SE StYear	ша
Babbit Lane	1.0	383.917	167.388	50.000		1980	5
Bahcock I n	1.0	364,466	50,000	50,000		1980	_
Baldwin Ln	1.2	466.045	50,000	50,000		1980	3
Ballad Ln	1.1	419,222	50,000	50,000	25,000 [1980	
Bancroft Ln	0.5	184,243	50,000	50,000	25,000 [1980	3
Barker Ln	0.7	276,365	50,000	50,000	25,000	1980	
Barrington Ln	1.3	490,888	50,000	50,000	25,000 [1980	- :
Bartlett Ln	0.9	334,881	50,000	50,000	25,000	1980	
Bayberry Ln	1.8	696,541	50,000	50,000		1980	
Beechfern Ln	0.7	267,286	50,000	50,000		1980	
Belhurst Ln	0.9	352,688	50,000	50,000	, 1	1980	- (
Bendix Ln	0.8	308,926	50,000	50,000	,	1980	
Bently Ln	0.8	304,708	50,000	50,000	/	1980	
Berkshire Ln	1.1	417,206	50,000	50,000	,	1980	
Birchwood Ln	0.7	282,192	50,000	50,000		1980	
Birdseye Ln	0.6	218,154	50,000	50,000	,	1980	
Bloomfield Ln Blueberry Ln	1.0 0.8	372,583 302,492	50,000 50,000	50,000 50,000	, 2	1980	
Bueberry Ln Bolton Ln	0.8	302,492	50,000	50,000		1980	
Bosworth Ln	0.9	336,711	50,000	50,000	/ 8	1980	_
Botany Cir	0.6	248.869	50,000	50,000		1980	
Boxwood Ln	1.1	423,851	50,000	50,000		1980	_
Brewster Turn	0.1	53,275	50,000	50,000		1980	
Summary for 64 Locations	112.5	40,727,349	199,660	3,100,000	1,550,000		

Value Summary Fields – at the bottom of the screen are fields that automatically summarize the values displayed in the grid.

Use the **Fiscal Year** and **Start Year** to further refine your set of displayed assets and financial totals.

Use the **Update Asset Values** button to establish asset values based on acquisition or construction costs of the displayed assets.

Use the **Update Depreciation** button to establish or update depreciation parameters or wholes schedules for the displayed set of assets.







Asset Search

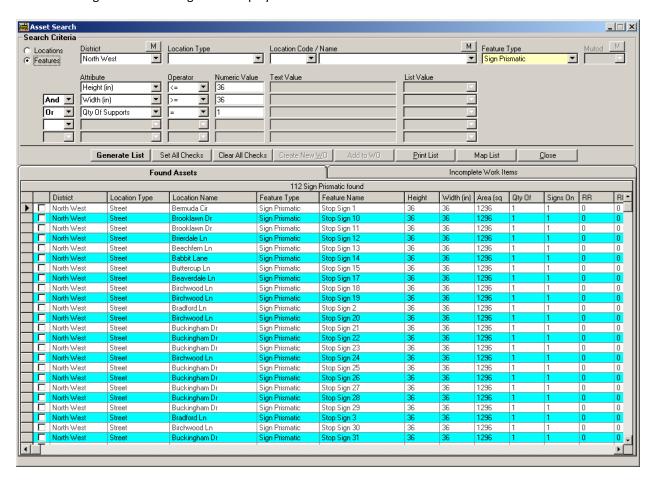
The asset search screen allows you to search for, list, map and print a set off assets that meet you custom criteria.

The controls on the screen allow you find a set of assets based on their custom attribute fields and the values and ranges of values for which you wish to search.

As you enter search criteria, clicking the Generate List button will refresh the grid to display the assets that match your search criteria.

One a list of assets is displayed in the grid; it can be printed, mapped or used to create a Work Order.

Double-clicking on a row in the grid will display the details of the asset listed.

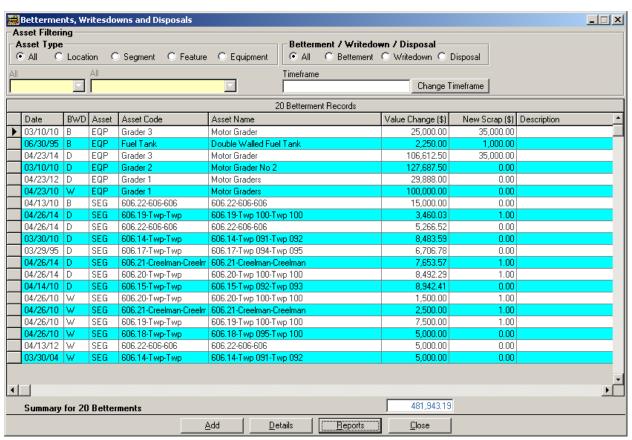


PubWorks Training Guide 83 6/10/2010



Betterments/Writedowns/Disposals

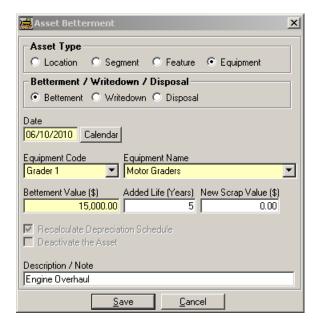
Betterments, write-downs and disposals are transactions that mark major milestones in the life of an asset. Betterments are used to extend the value and or life of an asset, writedowns are the opposite – they are used to lower the value and/or shorten the life of an asset. Disposals are used to officially declare that an asset has been removed from your inventory.



The screen to the right is used to create betterments, writedowns and disposals.

Note that it can be used for any kind of asset in your inventory and can be used to record a betterment, writedown or disposal.

These transactions automatically update the asset's depreciation schedule and will alter the asset's disposal date value if necessary.

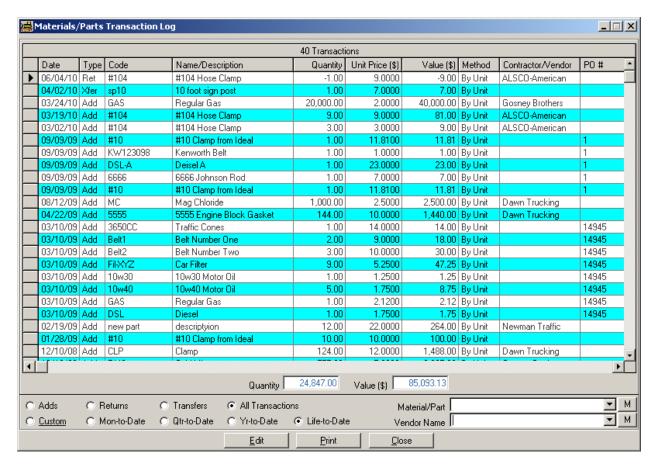




Materials Transaction Log

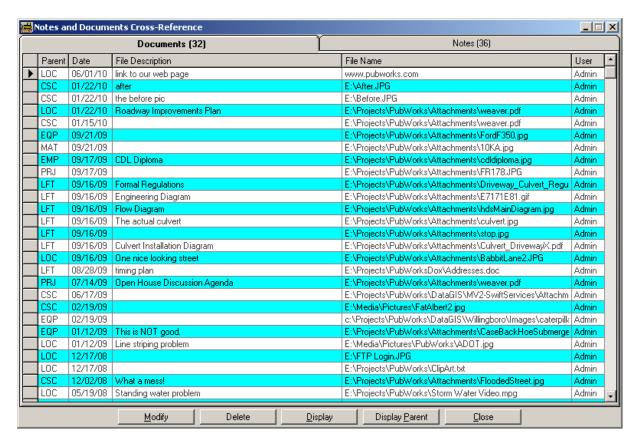
All material adds, transfers and returns can be viewed from the Materials Transaction Log. This screen displays the details of each transaction in a grid that has the following features:

- Column-Click Sorting.
- Double-Click to edit an existing transaction.
- Filter by transaction type.
- Filter by week through life-to-date time frame.
- Filter by specific material item and/or vendor.
- Print button to gain access to inventory management reports.





Notes and Documents Cross-Reference

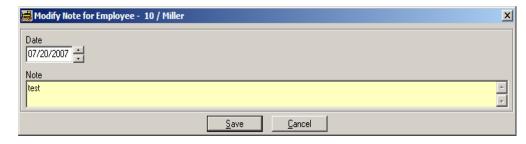


From one screen, it is possible to view all attached notes and documents. The screen's two data grids provide the following capabilities:

Column-Click sorting – standard among all PubWorks data grid is the ability to sort the displayed data based on the column hers you click. Click it once to sort in ascending order, click it again to sort in descending order.

Double-Click locate – double clicking a line item will open that line up for edits in the Modify Note window depicted below.

Modify – clicking on a row selects the row and is indicated by virtue of a small black triangular arrow appearing at the very left most edge of the line item. Once a row is selected, click the



modify button to display the row's data in the modify pop-up window (see example below). Exactly equivalent to double-click locate.

Delete – click a grid line item to select it and then click the delete button. PubWorks will prompt you asking you are certain you wish to delete the note or document. Be careful, there's no undelete.



Overhead Allocation

The **PubWorks** overhead allocation module provides the ultimate in ease and flexibility when the time comes to distribute an overhead figure across activities.

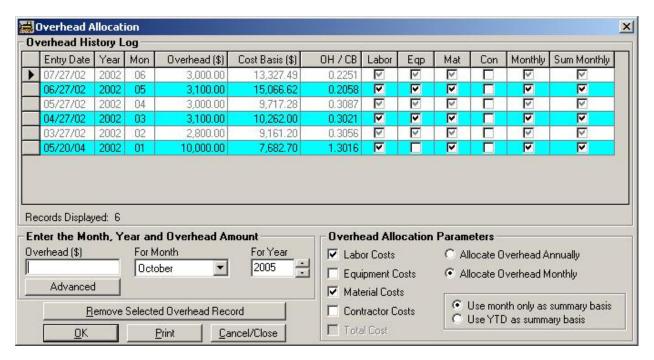
Overhead is allocated based on the settings in the Overhead Allocation Parameters group. The check boxes on the left-hand side of this group tell *PubWorks* what activity cost components to use as the basis of the overhead allocation. For example, if only Labor Costs and Equipment Costs are checked, *PubWorks* will calculate a total activities cost based on labor and equipment costs alone for the time frame selected. If Material Costs were also checked, this calculated total would also include material costs for the time frame.

The radio buttons in the Overhead Allocation Parameters group determines the method of allocation as follows:

- Allocate Overhead Annually Use this if you spread a single overhead number across activities at year-end.
- Allocate Overhead Monthly Use this if you spread a monthly overhead number across activities at the end
 of each month (this can be further refined by telling *PubWorks* to use just the month's activities or all
 activities month-to-date for the overhead cost basis calculation).

Once the allocation method is established (*PubWorks* will remember the method you use for overhead allocation so that you don't have to configure it with each use), you simply enter the overhead dollar amount, select the allocation time frame and click the OK button. *PubWorks* will update all appropriate activity records with a calculated overhead value and add a row to the Overhead History grid recording the exact nature of the overhead calculation used.

An overhead allocation can be easily removed by clicking the row in the history grid you wish to have removed and then clicking the Remove button.



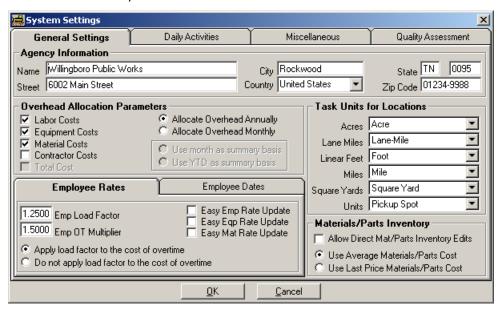


System Settings

This five-tab window stores values used by **PubWorks** to provide flexibility, greater ease-of-use and better data accuracy.

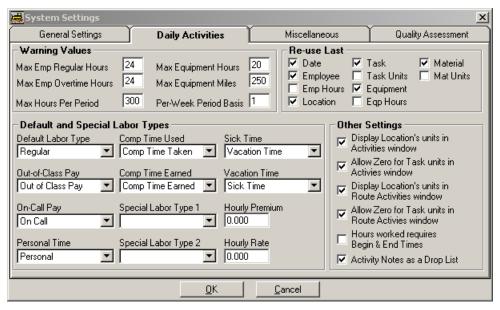
General Settings

- Agency name, and address information.
- Overhead allocation parameters and Employee load and overtime factors.
- Task/Location unit linkage.
- Employee Rates and Dates.
- Material Inventory Controls.



Daily Activity Settings

- Warning values and Labor Types (used for pay period hour customizations).
- Reuse last settings and unit cost accounting settings.
- Labor type setup for Pay Period Hours program

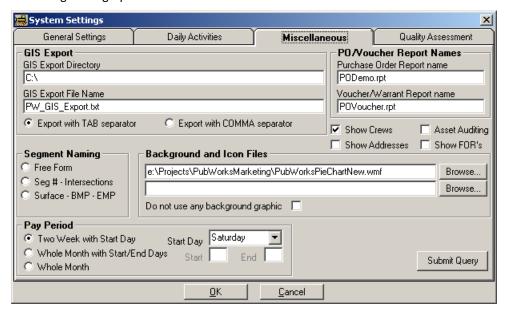






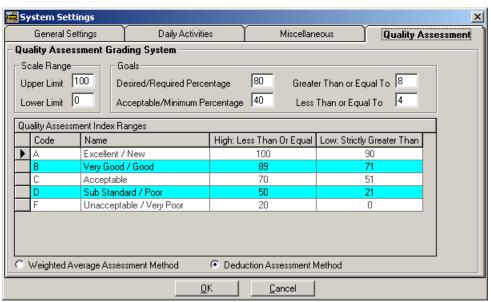
Miscellaneous Settings

- Export path and file name.
- File format.
- Pay period hours customization settings.
- Background graphic and Icon file selections.



Pavement Quality Index

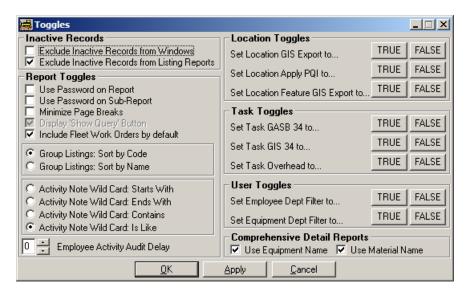
- Upper /lower limits of scale.
- Acceptability thresholds.
- Scale ranges.
- All values are user defined with preset defaults.





Toggles

The Toggles screen provides users with additional preference settings that will be persistent only on the PC that was used to display the Toggles screen. Additionally, the Toggles screen gives you capability to set or clear check boxes for GASB, GIS and Overhead attribute for Locations and Tasks with a single mouse-click.

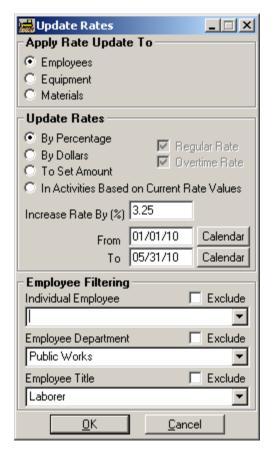


Updating Rates

It is possible, from one window, to adjust the pay rate of all employees, a group of employees or just a single employee. Pay increases (or decreases) can be performed across title or department and it can be done retroactively.

Pay raises can be performed on the basis of a percentage increase, a dollar increase or to a set amount. Rate increases can be selected so that they are applied to base rate, regular or overtime rate.

Drop lists are provided to permit selection of a single employee or a group of employees based on title or department.





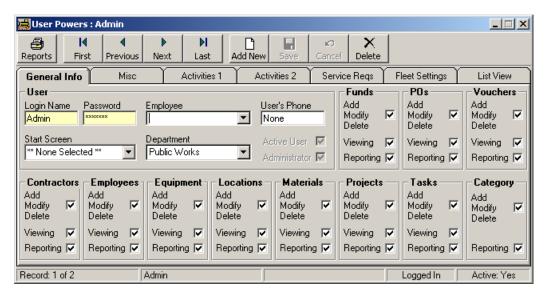
User Powers

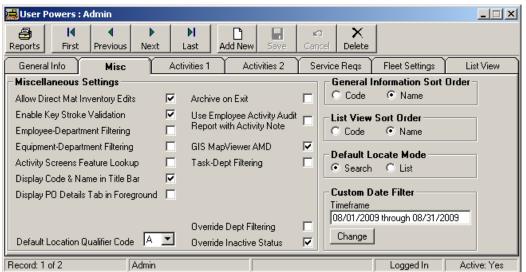
Users are set up on a login name and password basis. Each user can be tied directly to an employee and employee department. User-names and phone numbers are optional.

PubWorks permits an administrative user to create as many user accounts as necessary. Each user account can be configured to grant or deny levels of access to all of the main software components in **PubWorks**.

Users can gain access – on a module-by-module basis – at four different levels

- Full add, modify, delete access
- View only access
- Reporting only access
- No access

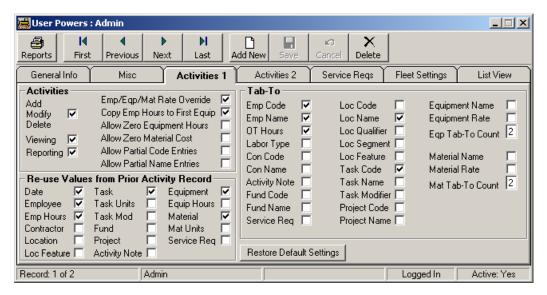


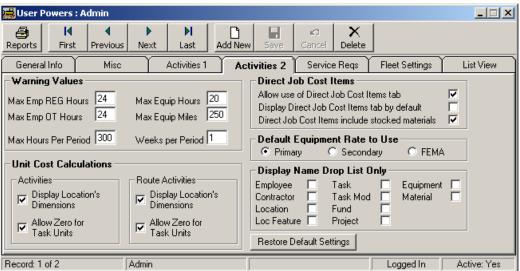




User Activity Settings

- Access powers with respect to Activities and Route Activities.
- Allow partial entries in code and or name drop lists.
- Re-use last settings.
- Extensive control over "tab-to" settings.
- Ability to hide "code" drop lists and use the "name" drop lists only.
- Synchronize user settings with comparable system settings button.

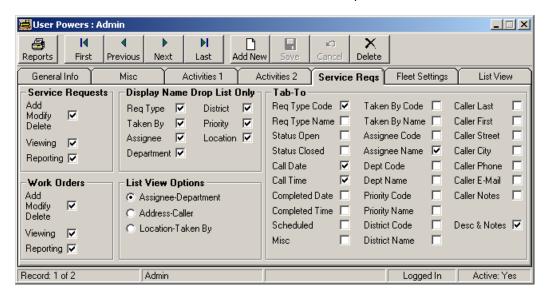






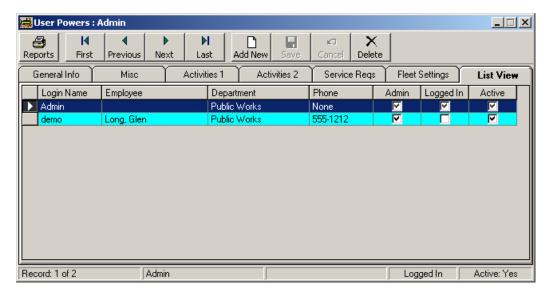
User Service Request Settings

- Service Request settings granting access powers
- Ability to hide code drop lists and use the name drop lists only.
- Choice of list-views
- Determine which fields are "tabbed-to" on the Service Request screen



User List View

- All users listed together.
- Column-Click Sorting and Double-Click User locate.



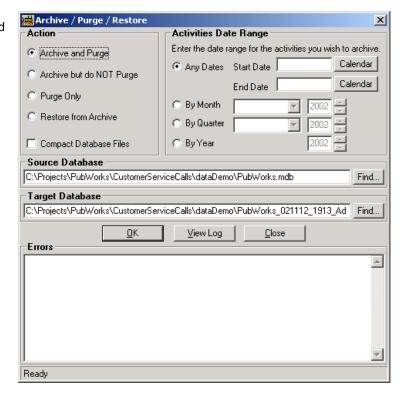
PubWorks Training Guide 94 6/10/2010



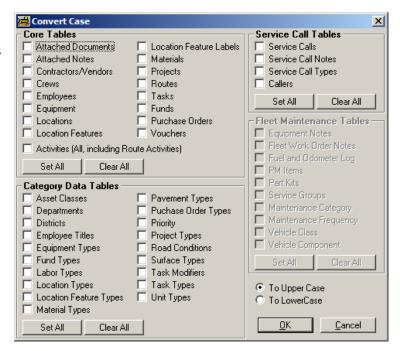
Database Maintenance Functions

Archive / Purge / Restore

Activity records can be removed from or restored to the *PubWorks* database very easily using the window below.



Convert Case – use this function to change the case of code and name fields in the database. This is a powerful feature and can save you lots of time. Just the same, converting all code and name values to UPPER CASE might have some negative ramifications with respect to screen and print real estate.





Compact and Repair Database

Over time, as records are added, modified and deleted, the size of the *PubWorks* database will continue to grow. It is highly recommended that you perform a Compact and Repair operation on a fairly frequent basis. Compact and Repair will delete temporary records, rebuild all data indexes and resize the database for optimum performance. Running Compact and Repair weekly would be a very good idea.

To perform Compact and Repair, it is required that you be the exclusive user of **PubWorks** at the time you attempt a Compact and Repair.

Delete Temporary Records

Certain functions and reports in *PubWorks* create temporary records to achieve their ultimate goal. The creation of these temporary records is indicated with the use of a progress bar. It is a good idea to remove these temporary records from the *PubWorks* database periodically for the sake of size, efficiency and reliability.

Record Consolidation

This powerful function allows you to clean up portions of your database that, due to time and sometimes less than careful use has caused the creation of near duplicate records.

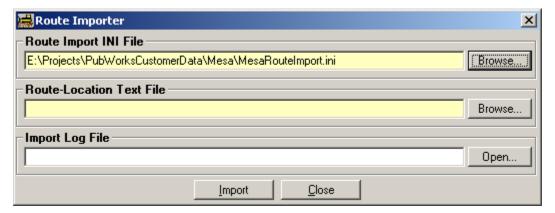
The example to the right shows that two tasks exist and they essentially represent the exact same thing. Here task 501 will have all records associated to it moved to task 507 and after the records are moved, task 501 will be completely deleted.

There is no undo!



Route Importer

To ease the data entry burden for route creation, a spreadsheet can be created that lists all the roads that make a certain route. Using the screen below (and an INI file that define the nature of the spreadsheet) PubWorks can import the route data and auto-create to corresponding route automatically.





GIS Interface

The **PubWorks** MapViewer is a live, two-interface to your GIS data. The MapViewer not only allows you to view assets in an ESRI Map directly with the PubWorks application but it permits you to view **PubWorks** "transaction" data via the map.

Due to the breadth of the MapViewer's functionality, it is covered in a separate training guide.

GIS Export

PubWorks can export cost information directly to your GIS system (or any other program that can accept comma or tab delimited text such as Microsoft Excel). This GIS interface allows you to send location cost data directly to your GIS system.

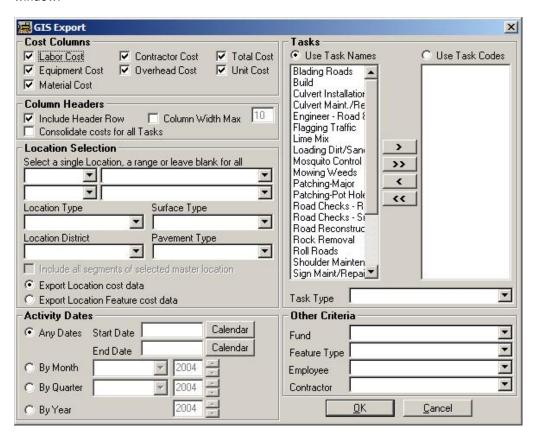
The file produced by this window is essentially a table of information consisting of locations as the rows and tasks as the columns. Task columns will have cost component sub-columns that correspond to the cost column check boxes. You can also elect to consolidate all tasks cost per location if you wish.

Locations can be selected individually or by range as well as by type, district, pavement and/or surface types. Also, Location Features can be used as the basis of creating the export file.

Tasks can be selected by moving the desired task or tasks from the list on the left to the list on the right. You can list tasks by either their codes or names. Task type filtering is also available

Full date range filtering as well as fund, location feature, employee and contractor filtering is also available.

File output format (comma or tab delimited) and location/directory defaults are established in the System Settings window.





Version Information

PubWorks possesses two version numbers – one for the **PubWorks** software and the other for the **PubWorks** database. These version numbers are prominently displayed on the **PubWorks** login screen and can also be found on the **PubWorks** about screen (by clicking Help on the main menu bar and then clicking the About menu item).



Here, it can be seen that we are at version **5.0.37**, database version **51a**. (The "a" stands for MS Access, if the SQL Server database were in use, the database version would say "51s.")

Additionally:

- Customer name and User name are displayed.
- Active modules are indicated by a series of four check boxes.
- Drive and folder information for program, database and reports locations.



Training Guide Index				
Activity Filter	79			
Add, Modifies and Deletes	73			
Adding Activity Records	70			
Asset Attributes	81			
Asset Registry	82			
Asset Search	83			
Betterments, Writedowns and Disposals	84			
Callers	62			
Category Data	8			
Common Themes and Terminology				
Contractors/Vendors	10			
Cost Reports	78			
Crew Activities	69			
Crews	12			
Daily Activities	65			
Database Maintenance Functions	94			
Employees	15			
Equipment	18			
Funds	48			
General Program and Database Organization	2			
GIS Interface	96			
Index	98			
Listing Reports	77			
Location Features	29			
Location Segments	33			
Locations	22			
Material Adds, Transfers and Returns	38			
Material Transaction Log	85			
Materials	35			
Menu Guide	6			
Notes/Documents Cross Reference	86			
Overhead Allocation	87			
Projects	39			
Purchase Orders	51			
Reporting	76			
Route Activities	68			
Routes	43			
Searching, Finding and Locating	74			
Service Request Settings	64			
Service Request Status	61			
Service Requests	58			
System Settings	88			
Tasks	46			
Toggles	90			
Updating Rates	90			
User Powers	91			
Version Information	97			
Vouchers and Warrants	56			